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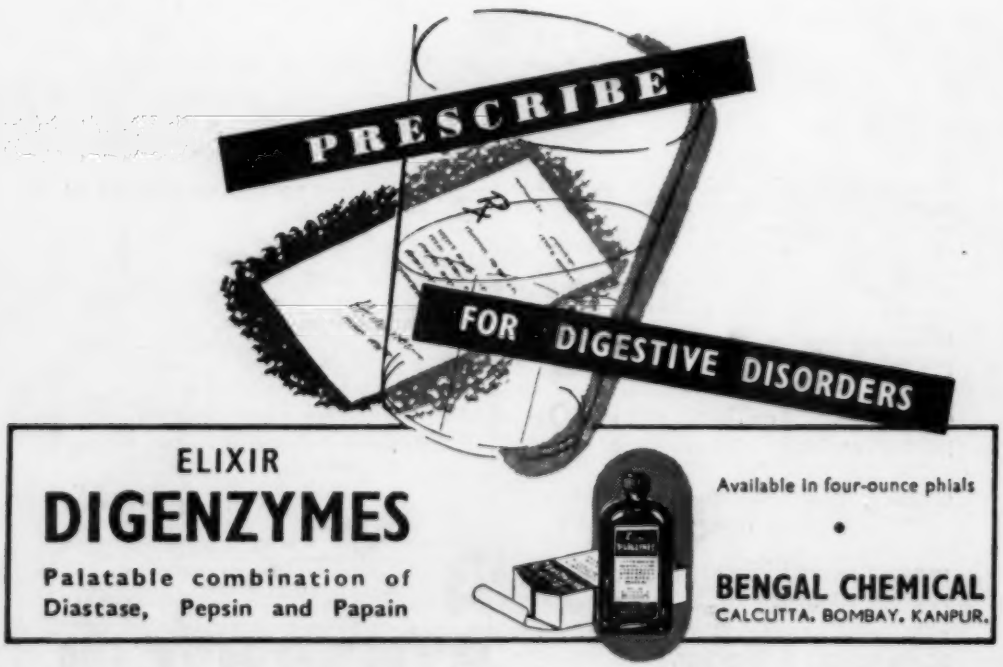

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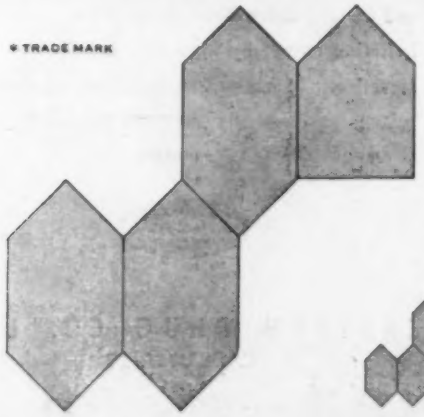

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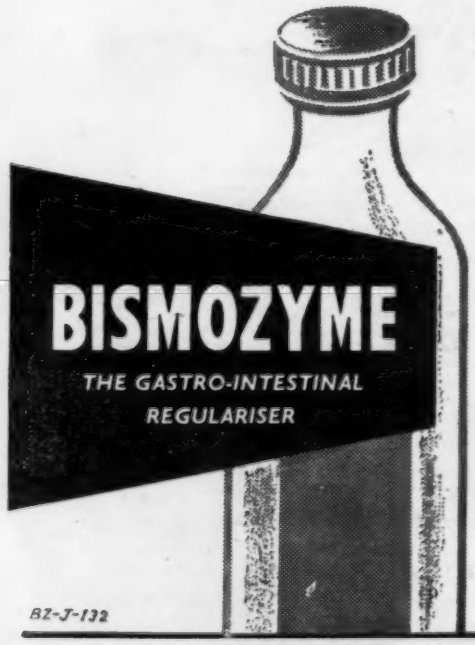

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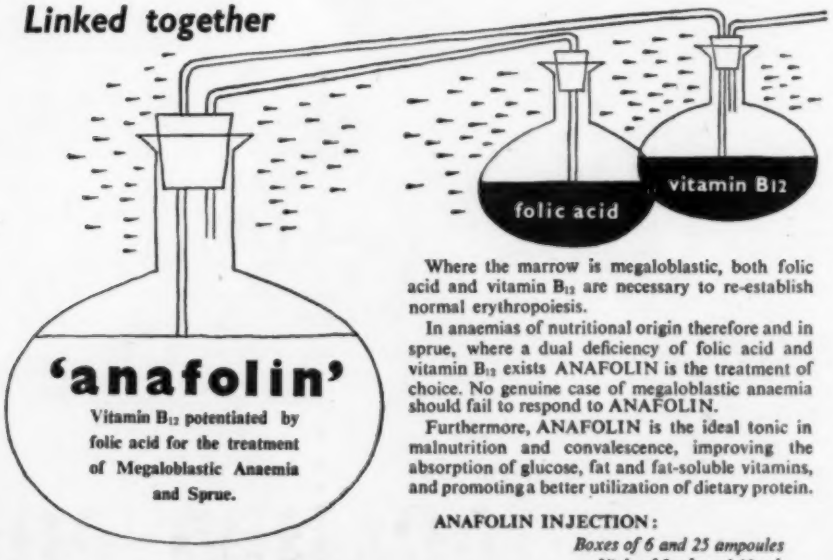

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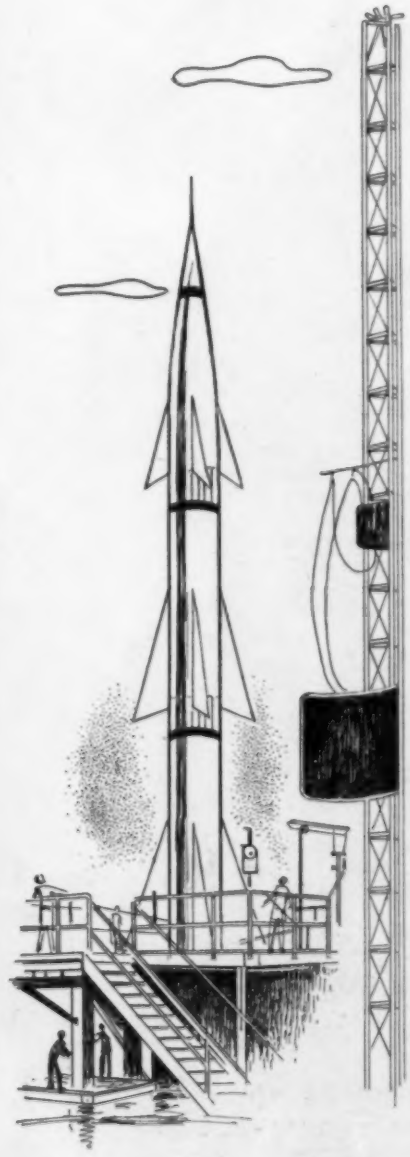

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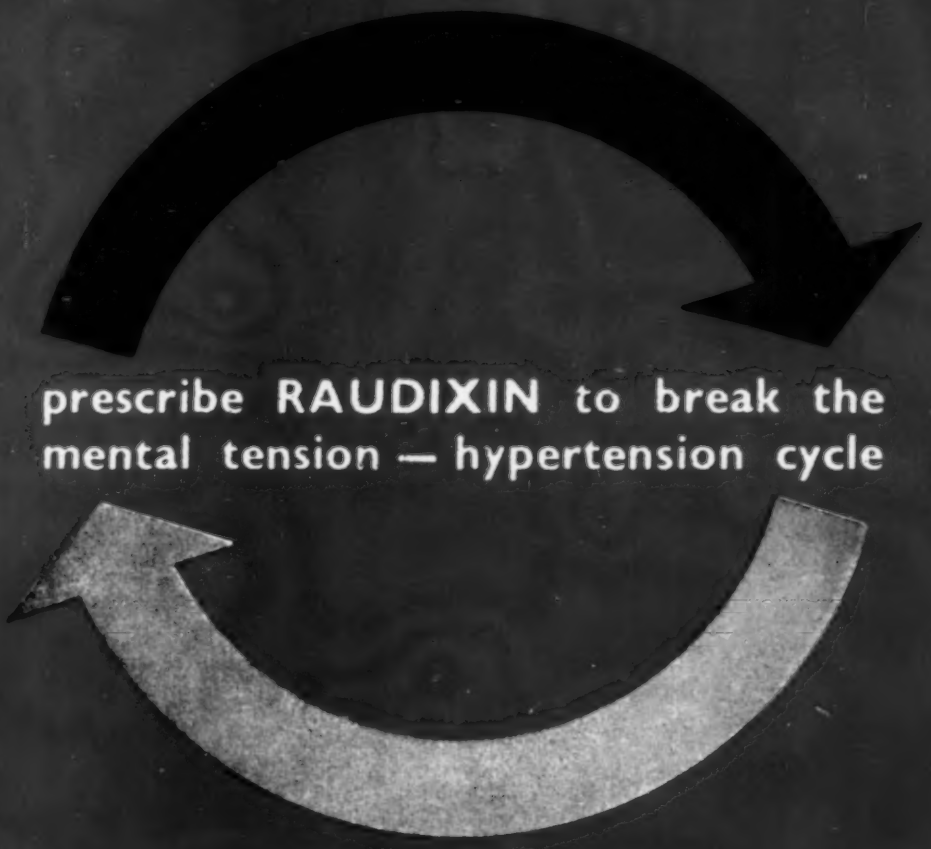

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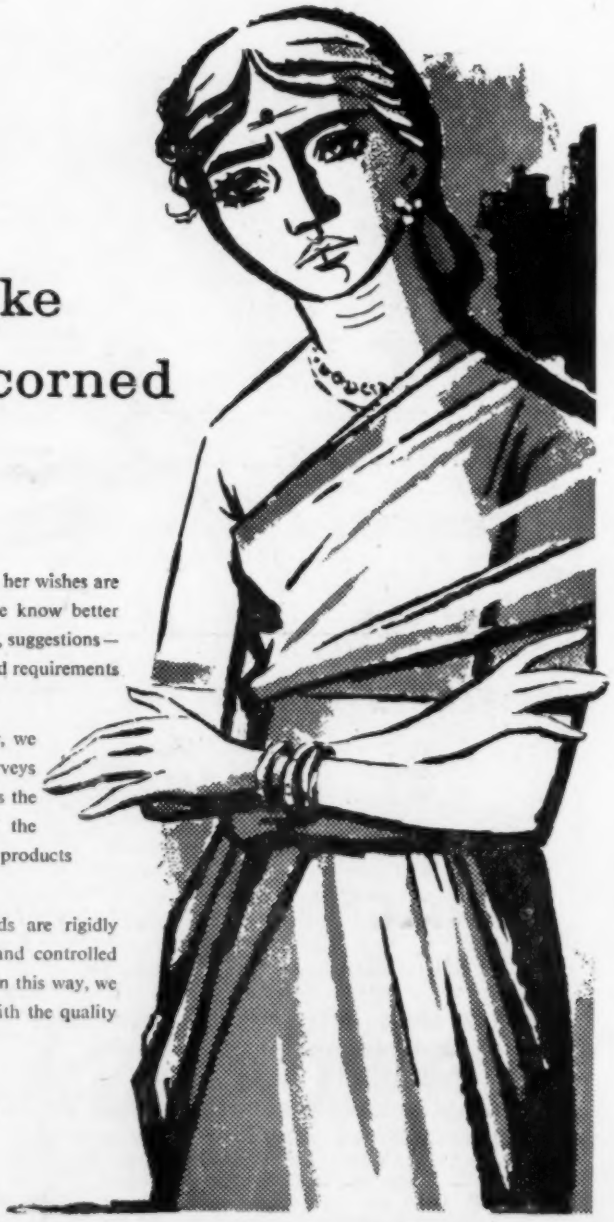

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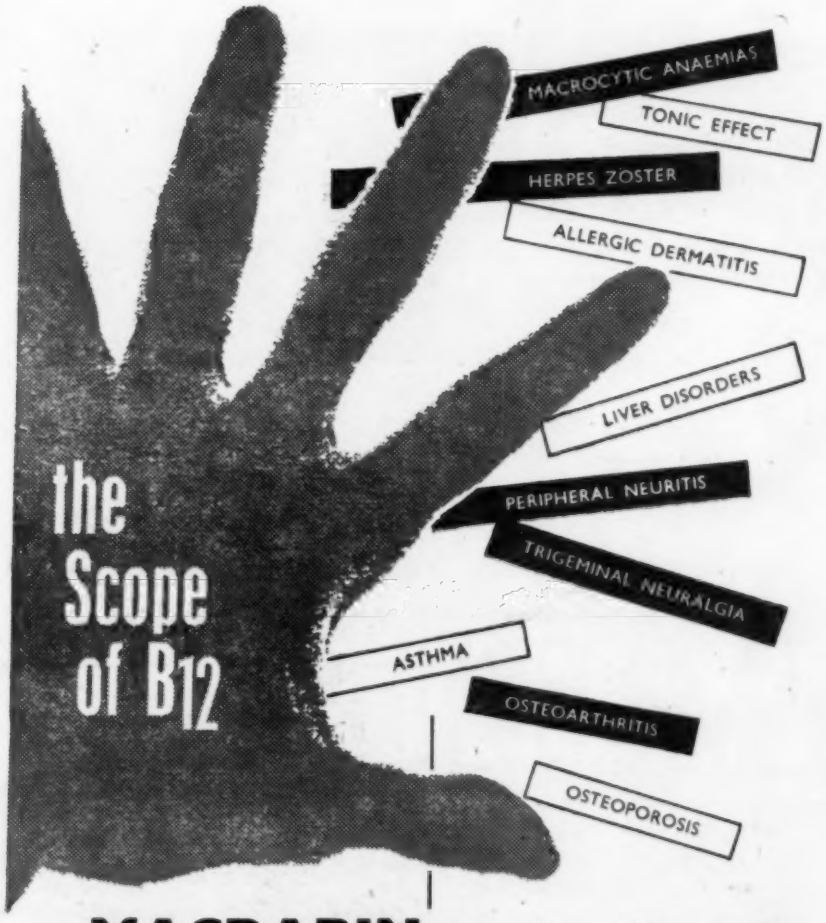

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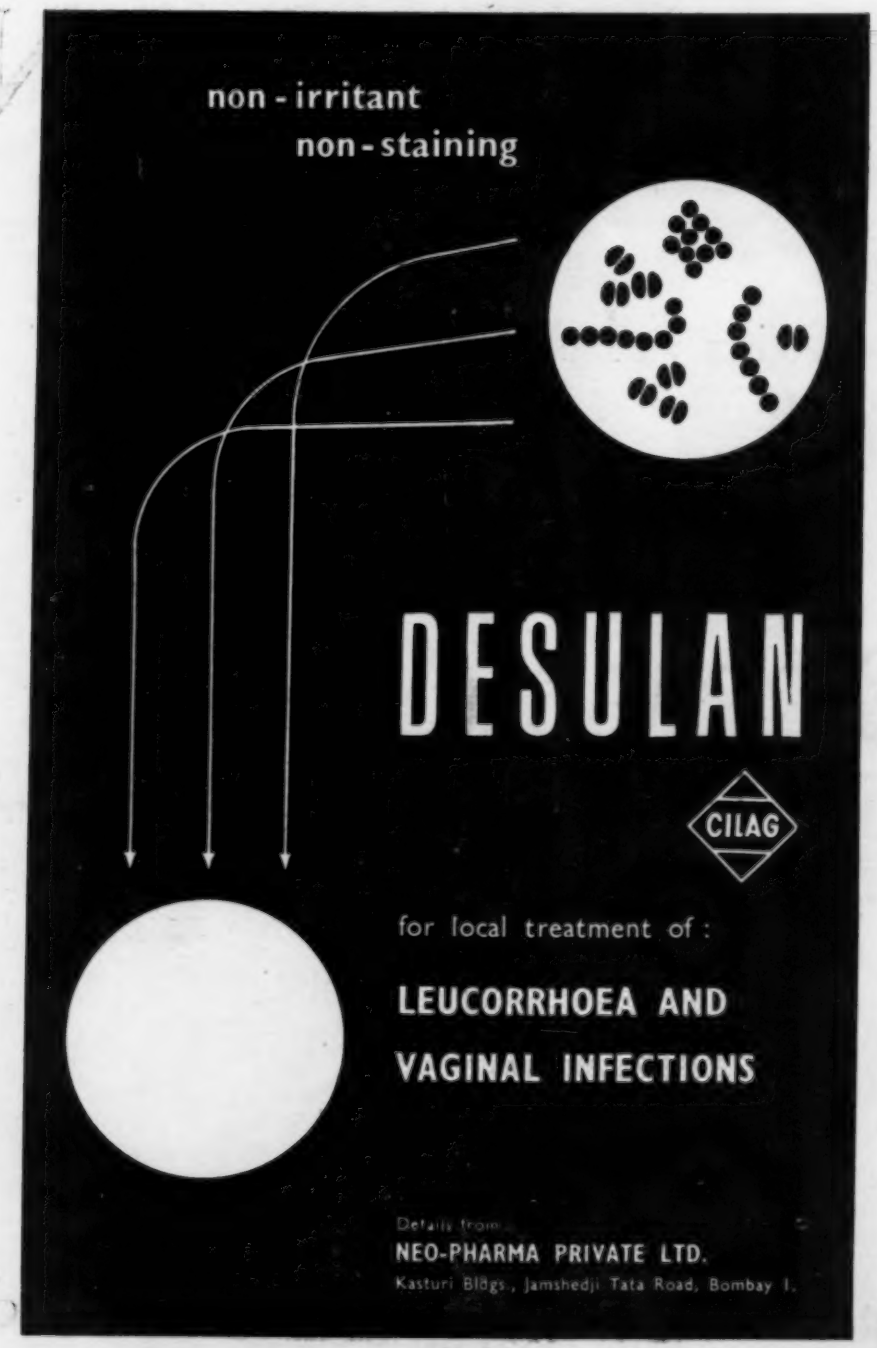
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ORIGINAL ARTICLES

A STUDY OF INTRAPLEURAL PRESSURE OF THE AFFECTED SIDE IN PLEURISY WITH EFFUSION

P. N. LAHA, M.D. (PAT.), M.R.C.P. (LOND.), M.R.C.P. (EDIN.), D.C.H. (ENG.)

Professor of Medicine, G. R. Medical College

From the Department of Medicine, G. R. Medical College and J. A. Group of Hospitals Gwalior, M. P.

INTRODUCTION

Intrapleural pressure plays a significant role in the maintenance of normal pulmonary physiology. The elastic property of the lung—contributed by the elastic tissue related to the lung, bronchi and the alveolar walls, the blood vessels and the pressure within the vessels, and the surface energy of the air liquid interface in the alveoli (Radford, 1954)—plays the major role in maintaining the intrapleural pressure.

Laha (1953) published his observations on intrapleural pressures on the contralateral side in pleurisy with effusion. Konar *et al* (1957) published their studies on intrapleural pressure in health and respiratory diseases and observed that in pleural effusion as the fluid accumulated in the pleural cavity, the intrapleural pressure of the affected side became less negative and might even be positive.

To study in detail the changes in intrapleural pressure of the affected side in pleurisy with effusion, the present work was taken up.

MATERIALS AND METHOD

Twenty-five cases of pleurisy with effusion, admitted under the author into the J. A. Group of Hospitals, Gwalior, were studied. In addition to radiological examinations, the diagnosis of pleurisy with effusion was confirmed by diagnostic paracentesis thoracis in each case. The cases were thoroughly investigated before measuring the intrapleural pressure. The cases selected were suffering from no other disease except pleurisy with effusion of one side.

For measuring the intrapleural pressure the modified Lillington and Pearson pneumothorax apparatus was used. Owing to the difference in the level of the fluid in the cases studied, the site chosen for measuring the intrapleural pressure was the second intercostal space of the affected side along the midclavicular line, which was above the level of the fluid in pleural cavity in all the cases except three (Nos. 18 to 20).

The analysis of the cases studied and the summary of the observations on intrapleural pressure are given in Tables 1 and 2 respectively.

OBSERVATIONS AND DISCUSSION

The findings of intrapleural pressure of the affected side in pleurisy with effusion were studied in comparison to Laha's (1946) findings of normal intrapleural pressure among Indians, which are −14 to −3 cm. of water during inspiration, −10 to 0 cm. of water during expiration, and −12 to −2 cm. of water, the mean pressure.

The cases studied by the author could be classified into five groups on the basis of the findings of their intrapleural pressure.

TABLE I—SHOWING ANALYSIS OF THE CASES STUDIED

No.	Name	Age in years, sex and nationality	Occupation	Duration of illness	Radiological findings of the cases studied				Intrapleural pressure of the affected side in cm. of water	
					Effusion (side)	Fluid level (anteriorly)	Trachea (position)	Apical impulse (position)		
					GROUP I					Mean
1	B.K.	20, M. M.	Labourer	2 months	Left	5th rib	Central	Shifted ½"	− 3, −2,	−2·5
2	B.L.	22, H. M.	Labourer	1 month	Left	3rd rib	Central	Shifted 1"	− 3, −1,	−2
3	R.	28, H. M.	Farmer	3 months	Left	6th rib	Central	Not shifted	− 9, −5,	−7
4	A.B.	18, H. F.	Housewife	3 months	Right	3rd rib	Shifted ½"	Shifted ½"	− 5, −1,	−3
5	S.B.	25, H. F.	Housewife	5 months	Left	4th rib	Central	Not shifted	− 6, −3,	−4·5
6	M.P.	22, H. M.	Student	1 month	Left	4th rib	Central	Not shifted	−10, −4,	−7
7	B.	25, H. M.	Labourer	1½ months	Left	3rd rib	Shifted ½"	Shifted ¾"	− 3, −1,	−2
					GROUP II					
8	B.B.	22, H. F.	Housewife	8 months	Left	4th rib	Shifted ½"	Shifted 1"	− 4, x,	x
9	D.R.	40, H. M.	Blacksmith	1 year	Right	3rd rib	Shifted 1"	Shifted 2"	− 4, x,	x
10	H.K.	18, M. M.	Farmer	1 month	Left	3rd rib	Shifted ½"	Shifted 1"	− 5, x,	x
11	H.	20, H. F.	Housewife	3 months	Right	4th rib	Central	Shifted 1"	− 6, x,	x
12	R.B.	24, H. M.	Policeman	2½ months	Left	3rd rib	Central	Shifted 2"	− 8, x,	x
					GROUP III					
13	V.D.	28, H. M.	Clerk	20 days	Left	6th rib	Central	Not shifted	− 2, +2,	0
14	S.	16, H. M.	Farmer	3 months	Left	3rd rib	Shifted ½"	Shifted ½"	− 2, +2,	0
15	S.B.	25, H. F.	Housewife	15 days	Left	4th rib	Shifted ½"	Shifted ¾"	− 1, +1	0
16	S.C.	20, H. M.	Blacksmith	1 month	Right	5th rib	Central	Not shifted	− 2, +2,	0
17	M.	35, H. M.	Weaver	25 days	Left	5th rib	Central	Not shifted	− 1, +1	0
					GROUP IV					
18	J.N.M.	45, H. M.	Homoeopath	4 months	Right	Massive	Shifted 1"	Shifted 2"	GIP, x	x
19	B.K.	50, M. M.	Farmer	7 months	Left	Massive	Shifted 1"	Shifted 3"	GIP, x	x
20	J.	25, H. M.	Farmer	1 month	Left	Massive	Shifted 2"	Shifted 4"	GIP, x	x
					GROUP V					
21	P.B.	40, H. F.	Housewife	1 month	Right	4th rib	Shifted ¾"	Shifted 1"	Space obliterated	
22	K.	32, H. M.	Farmer	3 months	Right	5th rib	Shifted ½"	Shifted 1"	Space obliterated	
23	H.R.	37, H. M.	Shopkeeper	4 months	Left	5th rib	Central	Shifted 1"	Space obliterated	
24	S.	17, H. F.	Maid	1½ months	Right	4th rib	Shifted 1"	Shifted 2"	Space obliterated	
25	H.S.	27, H. M.	Officer	21 days	Right	4th rib	Central	Shifted 1"	Space obliterated	

Massive=Fluid filling the entire pleural cavity. x=Pressure not recordable. GIP=Gradually increasing positive pressure.

TABLE 2—SHOWING SUMMARY OF THE OBSERVATIONS ON INTRAPLEURAL PRESSURE OF THE AFFECTED SIDE IN PLEURISY WITH EFFUSION

Group	No. of cases	Intrapleural pressure
I ...	7	Within normal range during inspiration, expiration, and in the mean pressure
II ...	5	Within normal range during inspiration, but no pressure recordable during expiration. Mean pressure could not be ascertained
III ...	5	Less than the normal minimum during inspiration, positive during expiration and the mean pressure, 0 cm. of water
IV ...	3	Gradually increasing positive pressure during inspiration (due to tracking of the pleural fluid into the rubber tube connecting the water manometer). No pressure during expiration. Mean pressure could not be ascertained
V ...	5	Pressure could not be measured in either phase of respiration owing to obliteration of pleural cavity above the level of effusion
Total ...	25	

The intrapleural pressure in the first group of seven cases (Nos. 1 to 7 of Table 1) was within the normal range during inspiration, expiration and with regard to the mean pressure. The duration of illness, the level of effusion in the pleural cavity, the position of the trachea and/or the apex beat bore no correlation to the findings of intrapleural pressure. It was, therefore, concluded that in spite of the collection of fluid in the pleural cavity, the intrapleural pressure could remain within the normal range in the affected side of pleurisy with effusion. In other words, the effusion up to a particular stage did not modify the factors governing the normal intrapleural pressure. This, according to the author, was the first stage of effusion from the point of view of intrapleural pressure.

In the second group of five cases (Nos. 8 to 12 of Table 1) the intrapleural pressure could be recorded only during inspiration, and it was within the normal range, while no pressure could be recorded during expiration, as the water column in the manometer of the pneumothorax apparatus showed fluctuation only during inspiration and none during expiration. This stage, according to the author, was the second stage of effusion from the point of view of intrapleural pressure. In this stage too there was no correlation between the duration of illness, the level of effusion in the pleural cavity, the position of the trachea and/or the apex beat. In the absence of cessation and/or clearing away of the effusion in the first stage, as further accumulation of fluid took place in the pleural cavity, the factors maintaining the normal intrapleural pressure were interfered with in such a way as to maintain normal pressure during inspiration, while abrogating it during expiration. The findings were such as not to permit assessment of the mean intrapleural pressure.

If the disease did not stop and/or clear away at the second stage, then, with further effusion the third stage set in. And in this stage the physiology controlling the mechanism of normal intrapleural pressure was modified in such a way as to maintain the intrapleural pressure on the negative side during inspiration (though less than the normal minimum of −3 cm. of water) but producing positive pressure during expiration (normal minimum being 0 cm. of water), and the mean intrapleural pressure, 0 cm. of water (normal minimum being −2·cm. of water) as observed in all the five cases (Nos. 13 to 17 of Table 1) in the third group. In this group too no correlation could be found between the duration of illness, the level of effusion, the position of the trachea and/or the apex beat and the findings of intrapleural pressure.

The fourth group of three cases (Nos. 18 to 20 of Table 1) had effusion covering the entire pleural cavity. The intrapleural pressure could be recorded only during inspiration and it was gradually increasing positive pressure owing to the tracking of the fluid from the pleural cavity into the rubber tube connecting the water manometer of the pneumothorax apparatus. No pressure could be recorded during expiration, and as such no idea could be available of the mean intrapleural pressure. This gradually increasing positive pressure during inspiration was not the correct measure of the intrapleural pressure—for which there was no free pleural space permitting measurement. This consisted of the fourth stage of pleurisy with effusion from the point of view of intrapleural pressure. In this stage too correlationship of intrapleural pressure with the duration of illness, the level of fluid, the position of the trachea and/or the apex beat could not be possible.

The fifth group consisted of five cases (Nos. 21 to 25 of Table 1), in whom, in spite of the presence of free fluid in the pleural cavity as detected by paracentesis thoracis, the intrapleural pressure could not be recorded in either phase of respiration neither through the second nor the third intercostal space, although attempted on three successive days. This, according to the author, was due to obliteration of the pleural cavity above the level of the fluid. Such a pathology was not

unexpected in inflammation of the pleura. Similar obliteration of the pleural cavity was observed by Laha (1958) in his study of the intrapleural pressure in lung abscess. The duration of illness, the level of fluid in the pleural cavity, the position of the trachea and/or the apex beat did not seem to govern the said pathology producing obliteration of the pleural cavity. No categorical definition could be ascribed to this stage, as any of the aforesaid four stages could turn into this stage. This observation of obliteration of pleural cavity would support air replacement when aspiration of the fluid is recommended as a therapeutic measure in pleurisy with effusion.

Konar, Sengupta and Chakrabarti's (1957) observations did not detail the changes in the intrapleural pressure of the affected side in pleurisy with effusion. From the present study it could be concluded that as fluid accumulated in the pleural cavity in pleurisy with effusion the intrapleural pressure up to a particular stage remained normal, which meant that the physiology maintaining the said pressure was not affected even with the collection of fluid in the pleural cavity. Subsequently, as more fluid accumulated the physiology was modified in such a way as to maintain normal intrapleural pressure during inspiration, while abrogating it during expiration. With further accumulation of fluid the physiology was altered in such a way as to maintain the intrapleural pressure on the negative side, though less than the normal minimum, but produced positive pressure during expiration, and 0 cm. of water as the mean pressure (normal minimum being −2 cm. of water). As fluid accumulated further the entire pleural cavity was covered and the only recordable intrapleural pressure was during inspiration which was gradually increasing positive pressure owing to the tracking of the pleural fluid into the rubber tube attached to the water manometer. This pressure did not reflect the correct intrapleural pressure because there was no free pleural space left to measure it. In other words, when the pleural cavity was completely filled with the fluid it could not be possible to ascertain the status of the physiology governing the intrapleural pressure. Lastly, there was a group of cases where too it could not be possible to assess the physiology maintaining the intrapleural pressure owing to obliteration of the pleural cavity above the level of effusion, a sequela of pleural inflammation.

The duration of illness, the level of fluid in the pleural cavity, the position of the trachea and/or the apex beat did not seem to bear any correlation with the findings of intrapleural pressure. From the findings of intrapleural pressure the only correlation which was logical was the division of the cases under the common denominator of 'stages' of effusion from the point of view of intrapleural pressure.

The author was of the opinion that what governed the changes in the intrapleural pressure of the affected side of pleurisy with effusion was the amount of fluid collected in the pleural cavity and the consequent collapse of the lung with its modified elastic property, which played the major role in maintaining the intrapleural pressure.

A measure of the elastic property of the lung of the affected side in pleurisy with effusion was reflected in the intrapleural pressure.

In this connection it has to be mentioned that it is not possible to measure the intrapleural pressure in those cases of pleurisy with effusion where there is no available free pleural space owing to massive pleural effusion or obliteration of the pleural cavity.

Summary

1. A study in detail has been made of the changes of intrapleural pressure of the affected side in pleurisy with effusion in 25 cases.

2. The study of intrapleural pressure has made it possible to classify the cases into 5 groups.

3. As fluid accumulates in the pleural cavity the intrapleural pressure remains normal up to a particular stage. With further accumulation the pressure remains normal during inspiration, but it is abrogated during expiration. As more fluid accumulates the pressure during inspiration remains on the negative side, though less than the normal minimum, but becomes positive during expiration. There is gradually increasing positive pressure during inspiration when, with further accumulation, the entire pleural cavity is filled up. Intrapleural pressure cannot be recorded in those cases of effusion where there is obliteration of the pleural cavity above the level of the effusion.

5. A measure of the elastic property of the lung of the affected side can be had from a study of the intrapleural pressure, except in those cases where there is no free pleural space available for its measurement.

Acknowledgment

My thanks are due to Dr. A. S. Misra, Superintendent of the J. A. Group of Hospitals, Gwalior, for permitting me to publish the records of the cases.

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OBSERVATIONS ON CONTACT DERMATITIS AT ZAIDPUR

D. B. BARAT, M.B.B.S. (PAT.), D.T.M., D.I.H. (CAL.)

Medical Officer on Reserve Duty
Barabanki, U.P.

Recognition of dermatitis as one of the occupational hazards dates back as early as the 16th century by Paracelsus. With the industrialisation of our country, the incidence of skin diseases is likely to rise (Lahiri, 1956). Contact dermatitis is usually due to sensitization of the worker to some irritant with which he has been constantly in contact during his occupation.

Material

While working as Medical Officer at Zaidpur, a town in Barabanki in U.P., I had the opportunity of studying 10 cases of contact dermatitis amongst the handloom weavers. Deails of cases observed during a period of three months is shown in Table 1.

Observations

It may be seen that the middle aged men suffer most. All the subjects were Muslims. The duration of contact with the working material appears to be fairly long in 9 cases out of 10. From Table 1 we also find that the distribution and nature of lesion is almost of similar type, the lesion being on both the hands in 8 cases and on the right hand in 2 cases.

Discussion

The skin of the Indian workers is fairly resistant to irritants and as such dermatitis is not so common in India as it is in Europe and America (Mendonca, 1955).

The occupational dermatitis of the hand is mostly seen on the dorsal surface of the hands, as the skin is relatively thin and more vulnerable to irritants (Lahiri and Barat, 1957).

The workers here in the course of their work are engaged in colouring the thread and weaving the cloth. The dermatitis is possibly produced in these workers due to constant friction of their hands with the thread and working material or by cotton dust or by the colouring material. From repeated irritation or secondary infection, the lesions become thickened, indurated, pustular, crusted or moist. Usually the entire surface of the hand is affected.

For diagnosis, besides the history of their nature of occupation and other signs, patch test was also done in one case with the colouring material used for colouring the thread. This test gave

Table 1—Showing Details of Cases Observed during a Period of 3 Months at Zaidpur

Name	Age in years	Sex	Duration of work in years	Duration of disease in years	Signs and symptoms
O.	29	M.	12	6	Erythematosquamous lesion on the dorsum of both hands; itchy
M.A.	35	M.	16	7	Erythematovesicular lesion on the dorsum of both hands; cracking of the skin on the sides of the fingers of right hand; itching present
S.A.	55	M.	15	8	Papulosquamous lesion on the dorsum of both hands extending upto the forearm of right hand; itchy
M.Y.	29	M.	10	6	Papulosquamous lesions on the dorsum of both hands and sides of the fingers; intensely itchy
M.A.	35	M.	11	5	Erythematosquamous lesions on the dorsum of both hands; itchy
R.	45	M.	18	10	Papulosquamous lesions on the dorsum of both hands and sides of all the fingers; intensely itchy sometimes
Z.A.	25	M.	9	5	Papulosquamous lesions on the dorsum of both hands; itching present
A.R.	34	M.	12	6	Papulosquamous lesions on the dorsum of both hands extending upto the forearm of right hand and on the sides of the fingers; itchy
M.F.	36	M.	10	7	Scaly lesions in the interdigital spaces on the right hand and also on the dorsum of the hand; itching present
M.A.	28	M.	5	3	Papulosquamous lesions on the dorsum of right hand and sides of the fingers; intensely itchy

positive reaction. A piece of gauze was soaked with the suspected material and was held by means of an adhesive plaster to a small portion of the healthy skin. In positive reaction there was an erythematous and inflammatory area seen after 24 hours.

The only important symptom complained of was itching and this was worse during the warm climate. Scratching led to septic infection and to more complicated lesions.

The general condition of these workers were below average.

SUMMARY

Ten cases of occupational dermatitis amongst the handloom weavers are reported.

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I am thankful to Dr. H. K. Rastogi, Civil Surgeon, Barabanki, for kind permission to publish this paper.

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CLINICAL TRIAL WITH 11,925* IN AMOEBIASIS

S. SACHDEV, M.B.B.S., M.R.C.P., F.R.F.P. & S.

AND

H. L. DHUPAR, M.B.B.S.

Department of Medicine
Gastro-Entero-Hepatology Unit
Hamidia Hospital, Bhopal

It is now considered rational to use a combination of drugs in amoebiasis, the object being not only to eliminate the amoebae but also to deal with the secondary infection which may be present concomitantly. In the treatment of amoebiasis new substances are, therefore, of great interest provided such substances combine a potent amoebicidal effect with antibacterial properties and are at the same time possessed of low general toxicity.

A new preparation designated as 11,925 and available in the form of 100 mg. tablets was subjected to a therapeutic trial on twentyseven cases. This compound is claimed to possess a potent amoebicidal effect along with antibacterial activity. It is chemically unrelated to any of the amoebicidal drugs so far known but has shown a specific action in experimental amoebiasis. The data about the chemistry, pharmacology and toxicology of this compound have been discussed (Roy Chowdhury *et al*, 1858 and Chatterjee *et al*, 1858).

MATERIAL AND METHODS

Patients suffering from active diarrhoea and dysentery and who showed indisputable microscopic findings of *E. histolytica*, trophozoites or cysts, were selected for this study. All patients with acute symptoms were admitted and the therapy was started after completing pretreatment investigations. In each case laboratory examination of five normally passed stools was done by direct film method. A sigmoidoscopic examination was done in most of the cases before starting the treatment. The material swabbed during sigmoidoscopy was also examined in most cases. The patients were discharged after a period of 2-3 weeks stay in hospital and were asked to return for check-up at the appointed dates.

Dosage—The drug was administered in the form of 100 mg. tablets. All adults received 0·2 g. (two tablets) thrice daily for 10 days. A seven year old male child was given only one tablet thrice daily for 10 days.

In all 27 patients were treated with the preparation 11,925; there were 8 females and 19 males in this series and they were from 7 years to 65 years old. Post-treatment studies were started 10 days after completion of the therapy. Subsequent follow-ups were done as follows:

Second check-up, one month after completion of therapy.
Third check-up, two months after completion of therapy.
Fourth check-up, four months after completion of therapy.
Final check-up, six months after completion of therapy.

At each check-up period microscopic examination of two normally passed stools and one stool examination after saline enema was made. A sigmoidoscopic examination was also made in each case. In seven cases the follow-up period was less than four months.

Important data relating to each patient are given in Table 1.

* Preparation 11,925 was supplied by CIBA Pharma Private Ltd., Bombay.

TABLE 1—SHOWING DETAILS OF THE CASES STUDIED

Case No.	Sex	Age in years	Symptomatology on admission	Stools	Sigmoidoscopy/ Proctoscopy	Results
1.	M.,	48	8-10 loose motions—4 days, with griping dull pain in abdomen —6 months	Loose stools. Blood ++. Mucus +. E.H. cysts +	Proctitis + Amoebic ulcers +	Frequency of stools reduced to 2-3 within 2 days. Griping disappeared on 5th day and patient free from pain on 5th day. Stools normal within 1 week. At all check-ups this patient's stool and sigmoidoscopic findings remained negative. Side-effects—nil
2.	F.,	30	Irregular bowels—1 month. Loose stools irregularly alternating with constipation. Now having loose stools for the last 1 week. Fatigue	Semisolid stools. Blood −. Mucus +. E.H. cysts and trophozoites +	Scattered amoebic ulcers +	Symptoms subsided in 2 days but vague pain in abdomen persisted for 2 months. Stools and sigmoidoscopy negative at each check-up examination. Dryness of mouth and uneasiness for 2 days which disappeared
3.	M.,	7	Irregular bowels—3-4 months (loose motions and constipation alternating irregularly). Acute dysentery—15 days	Watery stools with little faecal matter. Blood +. Mucus +. E.H. trophozoites +.	Healing ulcers seen after 15 days of starting treatment	Frequency of motions controlled to 2 by 3rd day. Stool and sigmoidoscopic examinations persistently negative at each check-up. Side-effects—nil
4.	M.,	35	Diarrhoea, 5-10 loose motions—1 month. Weakness and fever—1 month. Liver enlarged 2 fingers, tender	Semisolid stools. No blood and mucus. Negative for E.H.	Proctitis. Amoebic ulcers 8 cm. from anus	After 7 days patient still had same trouble and findings at 1st check-up were same as those found at pre-treatment examination. Could not be followed up further. Side-effects—nil
5.	M.,	26	Distension of abdomen. Chronic malaria—20 days. 3-4 loose motions daily	E.H. cysts +.	Proctitis	Developed haematuria after single dose of 0·2 g. and suppression of urine. Was restless and had pain in loins. Urine showed 8-10 R.B.C. per field. This case was excluded from the series
6.	M.,	45	Loose motions 2-6 daily —6 months. Constipation off and on—6 months. Oedema feet —4 months	Semisolid. Mucus +. No blood. E.H. cysts +. R.B.C. +	Mucosa red and injected, amoebic ulcers present just above rectosigmoid junction	Patient symptom-free in 3 days. Stool and sigmoidoscopy—negative till present date. Side-effects—nil
7.	F.,	22	Loose motions 1-4 daily —1 month. Chronic amoebiasis with T.B. lungs	Semisolid. Blood +. Mucus +. E.H. cysts +	Amoebic ulcers at 15 cm. from anal margin	Frequency of motions reduced to 1 after 3 days, but relapsed again 10 days later and was getting treatment for T.B. abdomen. Stools and sigmoidoscopy were negative at check-up for amoebiasis. No side-effects.

TABLE 1—*Contd.*

Case No.	Sex	Age in years	Symptomatology on admission	Stools	Sigmoidoscopy/ Proctoscopy	Results
8.	F.,	25	Diarrhoea off and on—3 years. More for 6 months. 3-4 loose motions, pain in abdomen of dull type—6 months	Semisolid. Mucus ++. E.H. trophozoites +	Proctitis +. Sigmoiditis +	Symptoms under control in 3 days. Patient all right upto-date with negative stools and sigmoidoscopy repeatedly
9.	M.,	24	Acute diarrhoea—6 days. Griping pain in abdomen—6 months. Lump in rt. iliac fossa—1 month	Liquid stools Blood ++. Mucus ++. H.E. trophozoites ++	Sigmoidoscopy showed numerous ulcers 15-16 cm. above anal margin	Relieved in 2 days and all right in 5 days. Lump reduced in size and almost imperceptible after 14 months. Relapse again and the 2nd check of stools showed E.H. trophozoites again. Put on Prep. 11,925C. No side-effects
10.	F.,	45	3-4 loose motions—4 days. Constipation—4 months. Griping at defaecation—4 months. Pain in epigastrium—4 months	Loose motions. Blood +. Mucus +. E.H. cysts and trophozoites +	Sigmoidoscopy negative	Stool became normal by 5th day. Griping disappeared after 1 month. Stools became negative from 10th day onwards. No side-effects
11.	M.,	30	Loose motions 1-6 daily—1 month. Dull pain in abdomen	Semisolid. E.H. cysts +	Granular proctitis with bleeding areas. Sigmoidoscopy—injected mucous membrane	Patient responded gradually. Frequency of motions at final check-up was still 1-2 stools daily. Endoscopy negative after 2nd check-up. Stool persistently negative. No side-effects
12.	M.,	19	Diarrhoea and constipation—1 month. Griping pain in abdomen.	Normal stool appearance. E.H. cysts and trophozoites +	Amoebic ulcers above the recto-sigmoid junction	Symptom-free on 2nd day. Had griping off and on for 1 week. Check-ups negative upto date
13.	M.,	35	Loose motions off and on. Dull pain in left side of abdomen. Constipation off and on—1 month	Solid stools. R.B.C. +. Mucus +. E.H. cysts	Ulcers in posterior wall of rectum and sigmoid colon	Patient responded well but last check-up showed E.H. cysts again in the stool specimen. As patient went home it could be reinfection. No side-effects
14.	F.,	22	4-5 loose motions—1½ years. Dull pain in abdomen. Blood in stools—1½ years.	Semisolid. Blood +. Mucus +. E.H. cysts +. Giardia +	Proctitis+. Amoebic ulcers in sigmoid colon +	Motions reduced to 1 in 3 days, 2 on 10th day. Stools negative for E.H. but giardiasis persisted at this and 2nd check-up. It cleared up later with mepacrine. Stools negative for amoebiasis still. Urticaria controlled with an antihistaminic drug
15.	F.,	25	Loose motions 6-7 with blood and mucus off and on—4 years. Griping pain all over abdomen	Semisolid. Blood +. Mucus +. E.H. cysts +	Acute proctitis & generalised hyperaemia of sigmoid colon ulcers +	Stools became formed on 2nd day. Blood reduced on 2nd day. On 10th day healing of ulcers seen on sigmoidoscopy. 1 month later both stool and sigmoidoscopy negative for amoebiasis. No side-effects.

TABLE 1—*Contd.*

Case No.	Sex	Age in years	Symptomatology on admission	Stools	Sigmoidoscopy / Proctoscopy	Results
16.	M.,	19	Loose stools and constipation irregularly—5 years. Anorexia, fatigue, weakness, dull pain centre of abdomen	Liquid stools. No blood and mucus. E.H. cysts and trophozoites +	Bleeding ulcers + just at 10 cm. above anal margin	Symptoms relieved on 6th day. Stools became formed by 4th day. Healing ulcers seen on 10th day at sigmoidoscopy. Subsequent follow-ups were negative for amoebiasis. Anorexia during therapy
17.	M.,	40	Pain in abdomen, blood and mucus in stools —1 month	Semisolid. Blood +. E. coli +. E.H. cysts and trophozoites +	Negative	Patient practically all right from 5th day onwards. But at final check-up stools positive for E.H. cysts. No side-effects
18.	F.,	40	15-16 loose stools with blood and mucus—25 days. Pain in abdomen (left iliac fossa)	Liquid stools. Giardia +. E.H. trophozoites +	Severe proctitis. Sigmoidoscopy negative	Motions reduced to 3 on 2nd day and then to 1 by 10th day. Proctitis was observed improving at 1st check-up and proctoscopy was negative at later dates. Giardia infection persisted in stools and patient put on mepacrine therapy. No side-effects
19.	M.,	65	15-20 motions—15 days	Semisolid. Scanty. E.H. cysts +	Negative	Stools reduced to 2 by 3rd day and then to 1 by 5th day. Stools negative at all check-ups
20.	M.,	25	5-10 loose motions off and on—2 months. Dull ache and griping in lower abdomen during defaecation—2 weeks	Liquid stools. E.H. cysts and trophozoites +	Amoebic ulcers at rectosigmoid junction	Stools reduced in frequency. Gradually and by 5th day she was passing well-formed stools once. Griping disappeared by 10th day. All check-ups negative for amoebiasis
21.	M.,	19	Griping pain in abdomen—1 year. Loose motions 3-4 daily—1 month	Loose stools. No blood or mucus. E.H. cysts and trophozoites +, ova of ascaris +	N.A.D.	Patient improved from 4th day onwards. 3 check-ups done so far negative for E.H. cysts, but ova of ascaris seen at 3rd examination
22.	M.,	45	Repeated attacks of dysentery—1 year. 1-2 loose motions with blood and mucus—1 day	Liquid stools. Blood +. E.H. cysts +	N.A.D.	Relieved within 12 hours; patient well to date. No side-effects
23.	M.,	20	Pain in abdomen—3 years. Lump in right iliac fossa—2 weeks. 2 loose motions daily —2 days	Semisolid. E.H. cysts and trophozoites +	N.A.D.	Relieved of pain in 1 week but lump persisted. Stools and sigmoidoscopy negative for amoebiasis. No side-effects
24.	M.,	20	12-15 loose motions with blood and mucus—20 days. Pain all over the abdomen	Liquid stools. Watery consistency, little faecal matter. E.H. cysts and trophozoites +	N.A.D.	Relieved in 36 hours. Stools became normal in 6 days. Stools became negative for parasites by the 10th day. Subsequent check-ups—negative for amoebiasis. No side-effects

TABLE 1—*Contd.*

Case No.	Sex	Age in years	Symptomatology on admission	Stools	Sigmoidoscopy / Proctoscopy	Results
25.	M.,	35	Loose stools with blood and mucus—3 months. 3-5 stools daily. Pain in abdomen	Semisolid stools. Mucus +. R.B.C. ++. Pus cells ++. E.H. cysts +	N.A.D.	Relieved of symptoms in 2 days; pain persisted for 8 weeks in mild form. Now patient free from symptoms and protozoa. No side-effects
26.	M.,	19	Colicky pain with diarrhoea—1 week. Dysentery off and on—6 months	Semisolid stools. R.B.C. +. Pus cells +	1-2 ulcers present at rectosigmoid junction. Scraping from ulcers + for E.H. cysts	Improvement gradual in 1 month. All check-ups were negative for amoebiasis. Transient itching for 1 day
27.	F.,	18	Loose motions and constipation alternately—6 months	N.A.D.	Proctitis and ulcers + at 15 cm. from anus. Material from ulcers showed E.H. cysts	Improved symptomatically and has remained well so far. Proctitis disappeared after 1 month and ulcers healed at 1st check-up. No side-effects

RESULTS

Symptoms were promptly controlled in nearly all cases. The frequency of stools was reduced within 48-72 hours and by the 7th day the stools were well formed. The stools were negative for the parasite from the 10th day onwards. Sigmoidoscopy in most patients showed either healed or healing ulcers from the 10th day onwards. Twentytwo (84·6 per cent) patients out of this series remained asymptomatic and free of the parasite while four of these could be considered as failures. The first of these failures was a male 35 years old, who did not respond at all to treatment. The second failure, a male 24 years old, responded well initially but relapsed after 1½ months. Later on he responded to retreatment with 11,925 C, a more readily absorbed preparation than 11,925. The third and fourth failures were again males aged 35 and 40 years respectively. Four post-treatment check-ups were negative but at the final check-up the stool examinations revealed the parasites again.

This drug was well tolerated by most patients. The side-effects observed in a few cases are mentioned in Table 2.

TABLE 2—SHOWING SIDE-EFFECTS

Side-effects	Serial no. of patient
Dryness of mouth	Case no. 2
Haematuria	,, ,, 5
Urticaria	,, ,, 14
Anorexia	,, ,, 16
Itching	,, ,, 26

A concomitant infection was present in three cases. Apparently the drug 11,925 did not have any action on this infection. From this trial, one can expect compound 11,925 to replace emetine in the treatment of diarrhoeal and dysenteric forms of amoebiasis in which the symptoms came under control promptly. Further study is necessary before suggesting its role in other types of amoebiasis and intercurrent infection.

SUMMARY

Twentyseven patients with active amoebic dysentery were treated with the compound 11,925.

There was immediate good response in twentysix cases. Follow-up periods extending from three to six months showed that there were only four failures.

Clinical progress of patients is described. A few side-effects noticed during this trial have been tabulated. Termination of therapy was necessary in only one case.

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PULMONARY FUNCTION TESTS (A FURTHER STUDY)*

H. D. SINGH, M.B.B.S., M.S.

Department of Physiology
Madurai Medical College, Madurai

Normal values for vital capacity (VC), timed vital capacity (TVC), maximum breathing capacity (MBC) and maximum expiratory pressure (MEP), in males between 6 and 39 years and in females between 6 and 29 years were given in a previous paper (Singh and Prabhakaran, 1957). Similar data obtained subsequently in males above 40 years is presented here.

Materials and Method

Determinations were made in 25 healthy subjects between 40 and 62 years. The subjects comprised mainly of medical and technical staff of the Medical College and Hospital, and a few retired personnel.

A Collin's 9-Litre Respirometer. Segal-Herschfus timed interval ruler and a mercury manometer were employed, and records were obtained as in the previous study, with the subjects in the standing posture. Height in centimeters and weight in kilograms were recorded, and the body surface area (BSA) in square meters calculated from the formula of Banerjee and Sen (1955).

Results

The mean values, standard deviations and ranges are given in Table 1.

* Investigation conducted with the aid of a grant from the Madras State Research Committee.

Discussion

In subjects of this age group, it was observed that the mean value for VC is 400 c.c. less, MBC 27 litres less and MEP 15 mm. Hg less than the corresponding values for the age group 30-39 years reported in the earlier paper (Singh and Prabhakaran, 1957). No previous data for Indian subjects over 40 years are available in literature for comparison ; even in the west the older age group is poorly represented in most of the reported series. The VC, and 1 and 2 second TVC values obtained in this study are lower than those reported in western subjects of the same age group (Fowler, 1950 ; Pemberton and Flanagan, 1956 ; Needham *et al*, 1954). On the other hand, the MbC is higher than the figures given by Baldwin *et al* (1948). This discrepancy in differences in VC and MBC between Indian and Western subjects has also been observed in young adults as well (Thompson Wells, 1954 ; Singh and Prabhakaran, 1957). MBC values reported in different laboratories show wide variation. This is attributed largely to differences in apparatus and techniques employed. Nevertheless, since MBC is a more reliable index of the ventilatory capacity of the lungs, the data appear to indicate that this capacity in Indians is not lower than in western subjects.

The value of pulmonary function testing is being increasingly recognised, and the procedures are more frequently employed by the clinician. As chronic pulmonary disorders are common in the elderly, the data for Indians in the older age group presented here may serve as a useful guide in the clinical assessment of pulmonary function in elderly patients.

Summary

VC, TVC, MBC, and MEP were determined in 25 healthy male subjects between 40 and 62 years. The results are presented and discussed.

Table 1

	Age in years	Height (cm.)	Weight (Kg.)	BSA (sq. m.)	VC (c.c.)	TVC percentage			MBC (lit./min.)	MEP (mm./Hg)
						1 sec.	2 sec.	3 sec.		
Mean	49	167·3	61	1·75	3150	76·8	89·6	94	117·5	73·3
Standard deviation ...	7	7·6	11·3	0·15	402	9·3	5·4	4·1	21·7	21·9
Range	40 to 62	154·5 to 193	40·5 to 94	1·41 to 2·15	2280 to 3890	58·2 to 88·8	79·5 to 100	85·8 to 100	67 to 166	40 to 116

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SPECIAL ARTICLES

THE KERALA FOOD POISONING

C. O. KARUNAKARAN, M.B.B.S. (MAD.), D.P.H., D.T.M.&H. (CAMB.), D.B. (LOND.)

Trivandrum

The widespread occurrence of food poisoning in Kerala, during April and May, this year, has perhaps no parallel in modern public health history. It created a panic and sense of insecurity which no epidemic disease has produced, in recent years. It should, therefore, be a subject of more than passing interest to the medical profession. Having been a member of the Committee appointed by the State Government to investigate the cases of poisoning and recommend remedial measures, both immediate and permanent the author had opportunities to get first-hand knowledge of the incident. This article is based on the information gathered during that inquiry.

Eight hundred and twenty eight cases of poisoning, with 106 deaths, were reported between 13th of April and 31st of May, 1958. Out of these 300 involving 102 deaths were due to folidol ; 40, with 4 deaths were of a suspicious character and the rest were not genuine cases of poisoning. In all proved cases, folidol was detected in the remnants of food consumed by the victims and in the stomach contents of the deceased. There was also corroborative evidence in the similarity of symptoms, and the high incidence rate (almost 100 per cent) of disease among those who had consumed the contaminated food. In the small group considered suspicious, no laboratory confirmation was available because no materials were collected for analysis. These cases were reported by the police or village officers too late for appropriate investigation.

SOURCE OF POISONING

Contamination of food materials resulted from leakage of carboys of folidol imported into Cochin on 1st April, 1958 by *S. S. Jai Hind* in its 166th voyage, from Bombay. Fifteen of the 55 carboys, each containing 3 gallons, were defective ; 6 had leaked and about 12 gallons of folidol had been spilt over large consignments of articles of food and cattle fodder stored in the same hold. Although the carboys and the deal-wood boxes in which they were individually packed were labelled "Poison" in bold types in red ink, in the shipping documents they had been declared "harmless chemical". That was how they were allowed to be shipped in the same hold with consignments of food. The leakage of carboys had been noted by the landing and godown clerks, and insurance agents who were promptly notified, had conducted a survey to assess the loss resulting from leakage. Otherwise, the incident was ignored and it was not brought to the notice of the local health authorities. And so contaminated bags were handed over to the consignees by the shipping agents and were distributed throughout the State, mostly in the central and southern districts.

Cases of poisoning followed the distribution of the contaminated food materials. It occurred first in places close to Cochin and later in the more distant places. The earliest was in Parur 20 miles to the north of Cochin, on 13th April ; the next was in Thrippunithura to the east, on the 19th ; Trichur, farther north, had cases on the 22nd ; and Trivandrum and Quilon in the extreme south, between the 25th of April and 3rd of May. Freezing of all stocks which arrived by *S. S. Jai Hind*, ordered by the State Government early in May, prevented further large scale incidence of poisoning. Almost all proved cases of poisoning occurred between 13th April and 3rd May and the bulk of spurious cases, mostly of a psychoneurotic character, after that.

CHARACTERISTIC FEATURES

The general picture in proved incidents is interesting enough to deserve mention. In a small village, near Parur town referred to above, 10 persons who ate bread and biscuits died in 3-4 hours, on 13th April. The death of three boys, sons of a crippled labourer, who went out shopping and were reported dead within 2 hours after leaving their house, as a result of eating bread purchased from a hawker whom they met on the way, is a typical instance. The people of the village were so terrorised by the suddenness of these deaths that they readily believed the local Ayurvedic and Homoeopathic practitioners' theory

that death was due to radio-activity. The villagers were afraid to touch the bodies of the dead. That day they remained within closed doors to protect themselves from radio-active winds. The medical officer in charge of a neighbouring dispensary who saw some of these cases in the dying condition noted muscular contractions and made a presumptive diagnosis of strychnine poisoning. The baker absconded. Eventually, when his shop was forced open, it was found that the flour he had used to prepare bread was of *'Jai Hind'* origin. Folidol was detected in the remnants of bread and the flour with which it had been made.

On 19th April, 10 persons were admitted to the Government Hospital, Thrippunithura, with symptoms of poisoning and two died. The medical officer in charge, who treated the cases, traced them to the sugar which all of them had purchased that day from a neighbouring shop ; but he reported to the police that poisoning was due to contamination with D.D.T. which was also sold in the same shop, side by side with sugar. This sugar was subsequently found to be contaminated with folidol. The diagnosis of strychnine poisoning on the 13th and D.D.T. poisoning on the 19th, in two places 40 miles apart, led them to be treated as disconnected incidents.

The next major outbreak was in a village near the Trivandrum Medical College, on 25th April. Sixtysix persons who consumed *payasam* (a semi-solid pudding-like preparation) were taken ill between 11 A.M. and 1 P.M. All were promptly rushed to the two Collegiate Hospitals ; 5 children died before reaching the hospital or immediately after admission. The *payasam* had been prepared by a professional hawker who had carried on that trade for years, using the same recipe, day after day. About 100 persons purchased it for lunch daily, but that day as soon as he heard about poisoning symptoms, he discontinued its further sale ; but 66 persons had already eaten it. The flour used for *payasam* was from a new consignment. This flour, the *payasam* and the stomach contents of victims were found to contain folidol ; but only after two more serious incidents had occurred.

Both these outbreaks were on the same day, 29th April ; one in the heart of Trivandrum City, and the other in the Loka Sahaya Sena Camp, Sashthancottah, sixty miles to the north of Trivandrum. It was the latter incident that caused nation-wide alarm and focussed attention on the danger that had been smouldering for the previous 16 days. Fortyfive trainees and an officer of the Camp and 19 poor children of the neighbourhood died from poisoning. The trainees complained that the *pooris* served at breakfast that day were bitter. A company commander ate three of them to persuade the trainees also to follow his example. Some did so as a matter of discipline ; others ate bits and threw away the balance while a few evaded eating the bitter food, altogether. The officer who tried to set an example dropped down unconscious in the camp and so did many others. By this time crows which had eaten remnants of discarded poorie began to fall down dead and poor children of the neighbourhood who too had eaten the poories began to fall down unconscious. Pandemonium prevailed in the camp and its surroundings. There were no good hospitals within easy reach. Adequate transport facilities were also not immediately available. By the time the victims reached suitable hospitals a large number had either died or passed the stage of recovery.

Folidol was detected in the poories, in the flour used for their preparation, and in the viscera of the deceased.

In Trivandrum 79 persons who had taken food from a hotel, between 10 A.M. and 1 P.M. that day, developed poisoning symptoms. They were immediately rushed to the major hospitals in the City ; but 10 died. Folidol was detected in the foods which the victims had consumed, in the flour used for their preparation and in the stomach contents of the deceased.

CLINICAL FINDINGS :

Miosis, dimness of vision, salivation, sweating, pain in the abdomen, vomiting, diarrhoea, and unconsciousness, were among the chief signs and symptoms. Muscular twitchings and convulsions were present in some cases. A few had oppression in the chest and pulmonary oedema.

The interval between poisoning and onset of symptoms was ½ to 2 hours. Immediate stomach wash was very helpful. Prognosis was better in cases which had early vomiting.

Atropine acted like a specific. Children were significantly more susceptible than adults. It is probable that weight for weight they had higher doses of the poison. Fortytwo out of the 56 deaths which took place outside the L.S.S. Camp were children under 14 years. The 46 deaths in the camp are excluded in the assessment of age group and case fatality rates, because the trainees were young adult males and also there was delay in getting appropriate medical care.

The two incidents in Trivandrum, cited above, can be taken as typical for the assessment of incidence and fatality rates, since all age groups and both sexes were involved and the victims were taken to good hospitals without undue delay. In one, 10 out of 79 and in the other, 5 out of 66

died. From an analysis of these cases, it would appear that the younger the age the worse was the prognosis ; the prognosis was also worse if the stomach was comparatively empty at the time of taking the contaminated food.

POSTMORTEM FINDINGS :

Dehydration and paleness of the organs were found in all cases. Congestion of the gastric mucosa and oedema of the lungs were seen in some cases. The heart was invariably empty ; and death was attributed to syncope. Histopathological investigations were not done.

LABORATORY INVESTIGATIONS :

The presumptive diagnosis of strychnine and D.D.T. poisoning in the early cases led the analysts astray and there was a period of groping in the dark for a possible clue. The qualitative detection of phosphine and zinc in some cases, in this uncertain stage, was responsible for the inference that the cause of death might be zinc phosphide. Quantitative analysis failed to confirm this. Meanwhile police investigations revealed the leakage to folidol carboys and contamination of the articles of food. Analysis was subsequently directed to the detection of folidol. The paranitrophenol test and Averell and Norris test (1948) were used for the detection of probable positives, and confirmatory spectrophotometric tests done in suspicious cases.

One of the remarkable results of laboratory investigations was the detection of traces of folidol in a few samples of tea not connected with *Jai Hind* stock.

ANIMAL TESTS :

Mice refused to drink milk to which folidol was added (0·01 c.c. in 150 c.c. of milk). One mouse was fed 1 c.c. of this milk through a pipette. Immediately it began to scratch its nose violently ; its hairs stood on end, it became restless, began to shiver, developed respiratory paralysis, and collapsed in 10 minutes.

Two mice were given 0·5 c.c. of the milk. They developed symptoms in one hour ; became restless, hairs stood on end, developed shivering, salivation; violent up and down movements of the head and later twitching of all muscles. Both the mice died in 4 hours.

Two fowls were given a handful of rice mixed with 1 c.c. of folidol. One ate more voraciously than the other. It developed frothing at the mouth, vomiting and violent convulsions, and died in 30 minutes. The second which ate only a few grains died in 2 hours. It had shivering ; its gait was unsteady, wings stood on ends, it squatted on its legs, jumped about in convulsive movements till it died after great suffering.

No macroscopic changes were found on autopsy. Contaminated food materials, stored at room temperature for six weeks, did not show any significant deterioration of folidol.

DISCUSSION

The organic phosphorus compound E605 was discovered in Germany by Gerhard Scharder, in 1944. Soon it was proved to be a very potent insecticide and was produced under different trade names like thiophos, matacide etc. In the United States of America it was called parathion. It is the diethyl-p-nitrophenyl ester of thiosulphuric acid.

Folidol is the trade name of the Bayer product of "E605".

E605 acts in very high dilutions both as an insecticide and as a larvicide. It kills *Aedes aegypti* larvae in 0·000005 per cent dilution and *Musca domestica* in 0·0001 per cent dilution. It has no action on bacteria. It is absorbed through the sense organs and hair roots and gets located in the nerve centres. The theory that symptoms of poisoning are due to the inhibition of cholinesterase in the brain has gained general acceptance.

The lethal dose for man is 120 to 150 milligrams (2·5 milligrams per kilogram). Goldblatt (1950) reports the case of a chemist who took 80 milligrams orally without any effect, took a second dose of 120 milligrams and died shortly.

According to Hecht and Wirth (1950) symptoms in mild cases are nausea and vomiting. In serious cases vomiting is followed by diarrhoea. This is associated with cold sweat, giddiness, miosis and in some cases the patient finally becomes unconscious and suffers from laboured breathing caused by oedema of lungs.

Simpson (1953) states that E605 has three distinct toxic actions :

1. *A muscarine-like effect* on the parasympathetic system, affecting the postganglionic cholinergic fibres, causing anorexia, nausea, vomiting, abdominal cramps, sweating, salivation, bronchial constriction and cyanosis (described as 'tightening of the chest' and 'difficulty in breathing').

2. *Nicotine-like stimulation/paralysis* of preganglionic and somatic motor nerves causing fasciculation of the eyelid, face and ocular muscles, weakness, then paralysis becoming general.

3. *Central nervous system stimulation/intoxication* causing giddiness, restlessness, tremor, insomnia, ataxia, drowsiness, disorientation, paraesthesia, then coma and death.

The same author divides the symptoms of poisoning into two phases:

Early—Giddiness, headache, anorexia, nausea, a feeling of constriction of the chest, twitching of the eye muscles.

Late—Vomiting, sweating, pallor, salivation, then terminal twitchings of the voluntary muscles, delirium, coma and death.

In the series reported in this paper there was no such clearcut sequence of events except that giddiness and nausea were the earliest symptoms and coma the terminal symptom.

Denz (1951) noted paucity of macroscopic pathological lesions and histological changes in fatal cases.

Grob *et al* (1950) have emphasised the extremely slow rate of decomposition of parathion, only 50 per cent being hydrolysed in 120 days.

The incidence of poisoning from the extensive use of E605 has been carefully studied in the U.S.A. and Great Britain. One thousand tons of 50 per cent parathion was used for spraying citrus plantations in Florida in 1950 with 25 cases of sickness, but no death. Over 10 million acres under wheat were treated with it in Oklahoma in 1950 and 1951. There were two deaths and three cases of serious poisoning. Abrams *et al* (1950) state that there were 200 cases of parathion poisoning with 30 deaths in the United States of America, during the 3 years 1947-50. Bidstrup (1950) has reported 100 cases and 6 deaths during one spraying season.

No fatal case had been reported from Great Britain till 1951 although E605 spraying had been in progress for 3 years. Nevertheless in 1951, the Ministry of Agriculture laid down certain precautionary measures to be adopted in the use of organic phosphorus compounds in agriculture (Simpson, 1953).

Folidol was introduced into South India in 1954, three years after its probable risks had been fully brought to light in the U.S.A. and precautionary measures laid down in Great Britain. Table 1 shows how its use has gone up sharply during the last 4 years.

It may be seen that over 70 per cent of the imports into Cochin were used in the Madras State. Natarajan (1955, 1956) has reported a case of accidental fatal poisoning in 1955 and one of suicide in 1956. No poisoning is known to have occurred in Kerala.

TABLE 1

Users	Quantity used in litres			
	1954	1955	1956	1957
Madras State ...	52	1052	3503	5041
Kerala State ...	40	56	06	214
Private parties ...	11	95	1289	3786
Total ...	103	1203	4918	9041

Till October 1957, folidol was imported from Germany in original packings of 100 c.c. and 1000 c.c. Since then it was imported in bulk into Bombay, diluted there to 46·7 per cent with an emulsifier and distributed in large polythene carboys manufactured locally. It was 15 of these carboys that had leaked and contaminated articles of food, causing more deaths from E605 than the total number killed by it in the U.S.A. and Great Britain during the ten years, it had been in use.

SUMMARY

The outbreak of food poisoning in Kerala during April and May this year, and the chief clinical features are described.

All cases were proved to have been due to contamination of food with folidol.

The incidence rate was as high as 100 per cent and the fatality rate 10-15 per cent.

Children were more susceptible than adults.

Contamination with folidol took place by leakage of carboys labelled as 'harmless chemical' and shipped and stored with articles of food.

The use of folidol as an insecticide and its risks are briefly discussed.

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MEDICO-SOCIAL PROBLEMS OF OLD AGE

R. VISWANATHAN, B.A., M.D., M.R.C.P. (LOND.), T.D.D. (WALES), F.C.C.P. (AMERICA)

Director, Vallabhbhai Patel Chest Institute
Delhi University

Trends in Population

In most countries of the world the expectation of life is becoming longer. In the United States while the total population has doubled since 1900 the number of persons of 65 and over has almost quadrupled. It must be recognised that the increase in average length of life is largely the result of lives saved at early ages through the conquest of causes of infant mortality and infectious diseases. In Western countries particularly, improvement in living conditions and knowledge of public health have also made important contributions. Even in our country the expectation of life has gone up from 26 to 31 during 1941-1951. The number of people in the higher age-groups is much greater than what it was before. According to 1941 census, out of a total population of 315 million living in what constitutes today the Indian territory, 14·5 million were above the age of 60. Out of this about 4·4 million were above 70. According to 1951 census, the number of people above 60 are estimated to be over 20 million in a total population of 356·88 million. Thus it will be seen that the percentage of old people above 60, has risen from 4·6 to 5·7 in a decade. The problem of gerontology, therefore, is becoming increasingly important even in our country.

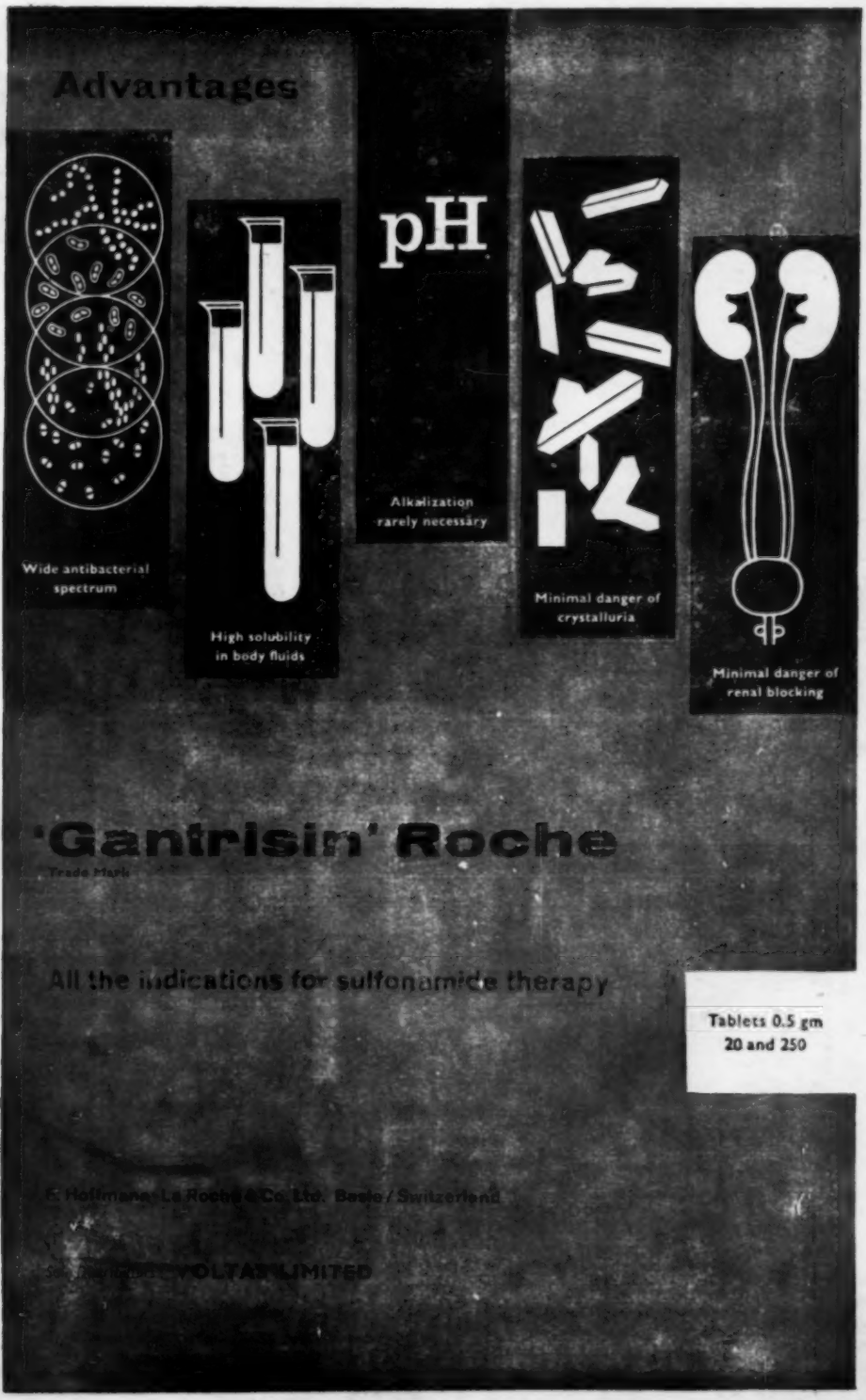
Diseases common to higher age-groups, like cancer, cardiovascular and kidney diseases are bound to increase. Since many of the children who would have died at early ages from infectious diseases are living to suffer and to die of these now more common diseases, and since medical research will undoubtedly succeed in attacking degenerative diseases, more people belonging to the higher age-groups will be living. Since the discovery of insulin the life expectancy of the 15 year old diabetic has almost doubled. If past is to be any guide to the future, we may even expect greater number of population in the higher age-groups than are shown from current projections. We are thus confronted with a situation which is wholly without precedence namely, the ever increasing number of elderly persons who must either have the opportunity to work and support themselves or be supported by the proportionally dwindling group of younger people. Such a grave social problem has already presented itself in Western countries and is bound to arise in our country also in the not distant future. We have no clear conception of what methods of housing, medical care, recreation, rehabilitation and so on are most appropriate for older people. The urgency of the problem makes it imperative that research plans and programmes be formulated and acted upon immediately.

Even though the reduction in chronic diseases would greatly lighten the economic burden in caring for our elderly population, it is only a temporary expedient, since it must inevitably follow that the life span would be progressively increased and we would be faced with more and more people living to progressively increasing age.

It is only by planning long term programmes which will utilise the remaining capacities of the elderly people for useful productivity in the total economy that the problem will be solved. Unfortunately, we do not know enough about the potentialities of the old to make sensible contributions to any kind of national effort. Hence the first need is for fundamental research on what elderly people can and cannot do and for the development of techniques which will preserve and maintain the capacities. Not only should steps be taken to reduce the incidence of chronic debilitating diseases among the old but also they should be integrated into the total economy of the country. This again will depend upon the knowledge which we gain by research for ascertaining the capabilities of old people.

In consideration of health maintenance in older people, we must give due regard to the problems of chronic diseases. Chronic diseases and ageing, however, are not synonymous. The incidence of chronic diseases and disability increases markedly with age. With increasing number of elderly people in the population, the problem of caring for these patients will increase. Obviously, the solution lies in more research to discover the causes and prevention of chronic diseases. It has been shown in Great Britain that by planned programmes many elderly hospitalised persons can be rehabilitated to a surprising degree and that many of them can be returned to old people's homes or to community living if facilities are available.

There is a growing volume of opinion among physicians to have geriatrics as a speciality like pediatrics. Because of the difference in the type of diseases seen in old age and because of the different socio-economic problems involved, it would perhaps be advisable to develop care of the elderly people as a separate speciality.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The health of the elderly can be taken care of through special fields. There is a need for health demonstration projects for the middle-aged and older people. Such projects can be operated within the framework of present health departments in the State and cities, and might well serve the same function among others as that served by the well-baby clinics for children. Lay people, nurses and physicians ought to be trained on the best methods of health education to the elderly. Psychological guidance to elderly people should be given adequate emphasis. There is a great need to assist people in making physical, mental and emotional adjustments that come with fear of retirement and changes in social position. In many countries in the West, universities and medical schools offer special courses on ageing at the post-graduate level. Very little is done, however, at the under-graduate level.

A good amount of research is being done in Western countries on problems of ageing and diseases of old age. Structural alterations, chemical changes, tissue metabolism, nutritional and psychological studies are being conducted in these centres. Very little work in the social sciences with reference to gerontology is, however, under way.

Answers are yet to be found for the following questions. What is ageing? What factors influence the rate of ageing? How can disease incidence and mortality be reduced? What are the potential qualities of older people and how can they be best utilised to the good of society? What technique and procedure will prove most effective in stimulating aged people to exercise their potential capacities? What are the factors that influence personal adjustment in older people? How do the personality and the emotional characteristics of people change with age? What are the most appropriate methods of care for aged people? A good deal of fundamental research will be required to obtain answers to these questions. In the succeeding paragraphs an attempt is made to indicate the scope and nature of research in gerontology that is being done in other countries.

Researches on Ageing

During the last few years there has been increasing appreciation of the importance of the study of processes associated with or directly involved in the changes occurring in tissues with age, at different periods of life of the organism from inception to death. Extensive experimental studies are being conducted particularly in Western countries to solve the problems pertaining to ageing.

Definition of Ageing

There is no agreed answer to the question "What is ageing". 'Ageing' in the literal sense of merely growing older, might well be a beneficial process; that is, there are certain reasons why an animal's expectation of life should increase instead of becoming shorter with advancing years. Animals grow wiser as they grow older. The survivors of early hazards are less likely to be their victims when exposed to them for a second time. It has been shown by Lack (1951) that beyond the first few months of life, the mortality of wild birds is independent of their age. Again, animals become wiser in an immunological sense and a second response to an antigenic stimulus is much more effective than the first.

Ageing in man, however, is accompanied by that general deterioration which the word itself colloquially implies. The same is true of all mammals and birds which have been artificially kept alive long enough to suffer the inroads of senile decay. It would at this stage be worth while to differentiate between ageing and senescence. Ageing merely stands for growing old while senescence can be taken to stand for deterioration or decline in vitality or lowering of biological efficiency, that accompanies age.

According to Medawar (1952), there are two ways of measuring senescence. One which may be called personal, which is used by the pathologist and physiologist, consists in regarding separately the several manifestations of decay—the wrinkling of the skin and greying of hair, the anatomical involution of the organs, the growing insufficiency of the endocrine output, the loss of acuity of the senses, the weakening of muscular power and coordination, the decline of the specific growth rate and rate of cellular turnover and so on.

Each of these measurements gives different estimates of the growth and rate of progress of senescence. Taking, for example, the specific growth rate of the body, Minot has pointed out that the specific percentage rate of growth fell from birth onwards rapidly at first, and then progressively more slowly. Minot argued that the specific growth rate was an intimate measure of vitality; it follows that senescence begins at birth and goes on faster in children than in their elders. Estimates of the rate of healing of wounds have been held to reveal a similar trend. Measurements of senescence by other standards, however, give different answers. Hearing is supposed to be sharpest at about the age of 10, and resistence to infectious diseases to be at its maximum at about 15. Muscular power

and co-ordination are presumably at their peak at about the age of 25. It will be seen, therefore, that senescence when measured from the point of view of growth begins at birth, as an antibody forming system at 15, and as a muscular machine at 25. There is, therefore, evident incongruity in making such measurements. For the time being we must concede that no one measure of senescence based upon the properties of individual organism can yet claim causal precedence over any other.

The second method of assessing senescence is statistical or actuarial measure. This is based upon the presupposition that although senescence is indeed a diverse and complex process, with manifestations in all the structures and activities of the body, its net total effect is of a measurable kind, namely, to increase the likelihood of dying, as life goes on.

The measurement of vulnerability is implicit within the information set out in any actuary's life table. A life table may be thought of as a series of figures representing the surviving residue, year by year, of a population noted at birth and followed through life until all have died. The table, therefore, begins with some arbitrary but large number of individuals say 2,00,000 and ends at zero when none survives. The birth rate itself is almost useless as a measure of the likelihood of dying, for its numerical value clearly depends upon the number of individuals still left to die. What is required is the age-specific death rate or force of mortality, the death rate at any age divided by the number of people still exposed to hazard. The force of mortality is high at birth, falls steeply to a very low value between the ages of 8 to 14 and then rises steadily without inflexion for the remainder of life. Medawar (1952) concludes that senescence may be measured by the force of mortality estimated from the age frequency distribution of the incidence of death, but the measurement is valid only of a genetically uniform population subjected to a constant pattern of hazard impinging upon it. Increase of vulnerability is caused partly by a net deterioration of the body, partly by the accumulation of an actuarial debt as a result of recurrent exposure to injuries that leave a persistent mark. Though there are certain obvious defects in this method of measurement of senescence, the biological value of the force of mortality as a measure of senescence cannot be questioned.

Cameron (1955) after a careful study of autopsy material obtained from males and females who died after 65 years of life has come to the conclusion that in every instance of ageing, one or more well defined chronic morbid condition can be found at work in a number of organs. Each one of them is a serious process capable enough of bringing about the death of affected individuals at any age. There is no instance where a clear-cut pathological basis can be found and moreover one which had obviously progressed and become more dangerous as age advances. According to Cameron (*loc. cit.*) ageing is merely the vector sum of a number of morbid processes most of which take time to develop and often long time to reach a serious climax. Many of these commence when we are young, perhaps even when we are born and insidiously develop throughout the greater part of our active lives. The remedy for ageing must be sought for in youth. Death, then, constitutes one means of stopping the progress of morbidity.

Changes due to ageing in the human body has been studied by various workers. McIlroy and Christie (1954) have found that as age increases, the chest wall becomes less mobile and the elastic recoil of the lung is reduced. In consequence, the volume of the lung increases and the efficiency with which gas is mixed in the alveolus is reduced. The capacity of the lung to ventilate the pulmonary blood is also slightly impaired. All of these changes occur in a greater exaggerated form in pulmonary emphysema.

Kirk and Laursen (1955) performed diffusion experiments with nitrogen, oxygen, CO_2, lactate, iodide and glucose on preparations of human thoracic aorta. They have shown that there is a definite increase in tissue permeability with age.

Bean (1953) has shown that there are certain alterations in the blood vessels of the skin which increase in size and number with ageing. It is not possible to say, however, whether such changes are the result of the intrinsic process of ageing or whether they result from the stress and strain of life and increase with ageing because environmental stimuli occur as time passes.

Lansing *et al* (1953) have made an extensive study of ageing of elastic tissue and the rôle of elastin. He found that arteriosclerosis, a condition often found in old people involves in the first place a defect in cholesterol metabolism and secondly breakdown in the structure of the elastic element in the media of arteries accompanied by calcification of this elastic material. The changes in elastic tissue are associated with age. Lansing (*loc. cit.*) have found that the average elastin contained in the aorta during the first two decades of life is slightly over 48 per cent while the average elastin in the 3rd decade and thereafter, drops out to values ranging between 41 to 44 per cent.

In pulmonary artery on the other hand there is a significant increase of elastin with age. The

loss of elastin cannot be attributed to a loss of tissue. It is more likely to be due to change in the properties of the elastic tissue with age.

The ageing of arterial elastic tissue may be measured in terms of the amount of calcium it contains. Juvenile arterial elastic tissue is free of calcium ; with age, it progressively takes up calcium as much as 18 per cent of the dry weight of the purified elastin.

Rubin *et al* (1954) have studied the ketosteroid excretion in ageing. According to them there is no significant difference in the excretion of any of the steroid compounds between men and women of the same age group. When, however, the excretion of steroid in young and old is compared, it is found that androgen excretion in the old age is decreased to 20 to 30 per cent while excretion of oxygenated steroids is 50 per cent of that found in the younger age group. There is a definite decrease in the excretion of total 17-ketosteroid with age.

Krohn (1955) has studied transplantation of gonadal tissues as applied to the problem of ageing. On the basis of his experience he has concluded that rejuvenation of the senescent as hoped of by Voronoff through transplantation of gonadal tissues will not be successful. The method of transplantation, however, may contribute more as a research tool to the problem raised by ageing of tissues than it ever could have done in the past as a form of treatment.

Parkes and Smith (1954) considers that work on the preservation of cells, tissues, and organs at low temperature offers immense possibilities in regard to the understanding of the comparative ageing of different parts of the body. It opens up the ultimate possibility of inducing suspended animation of the whole body for indefinite periods, that is, the defeat of ageing as it is now understood. Further work may reveal that such biostasis through hypothermia might suggest a solution to some of the problems pertaining to gerontology.

McCay (1955) has made some very interesting observations on the relation of nutrition to the span of life. He has found that experimental animals like trout, carp and pike can have their span of life extended by maintaining for long periods upon diet adequate in quality but inadequate in quantity. After long periods of retarded growth each responded to increased food allowance with resumption of growth. Evidence is accumulating to show that the slow growth of dairy calves is reflected in superior life time performance of the mature animals.

McCance and Widdowson (1955) are of the view that nutrition has a profound effect on growth, reproduction, and expectation of life. They have found that when a unicellular organism becomes overnourished nuclear growth may slow down. This will happen with over-nutrition and the cells may become very large ; nuclear growth and diffusion then cease and cells die. A pig given unlimited amount of first class diet grows rapidly and dies earlier. On the other hand, a pig given the same first class diet but in much smaller quantities can remain alive for years.

There is a large volume of evidence to show that general underfeeding of lower animals during the growing period, delays maturation and increases the life span. If this is true of most of lower animals, it may be true of men in whose case there is evidence that over-feeding hastens puberty. Sinclair (1951) opined that the optimum rate of growth of children is not necessarily the maximum and that harm may be done by excessive feeding with milk or school-meals and even by medication with vitamin B_{12} and aureomycin, even though these procedures make them grow more quickly and mature earlier.

Bartlett (1955) has studied the psychological aspects of ageing. According to him it appears that there is some slowing up of skilled action normally in the late twenties. This is followed by considerable or complete recovery. But it reappears in the late thirties or middle forties. There is again recovery until the early or middle fifties, and then the slowing up seems generally to continue and perhaps to increase. But there is nothing very remarkable or dramatic about it in the case of fit persons and if it is adequately countered probably it need have no practical significance. There is considerable awareness now that older people tend to look both at what they are doing and at the signals for what they are to do in most kinds of bodily skill, when accurate and rapid work is required, far more than younger people. Increasing age prefers to have cues for performance and of the course of performance from as many sources as possible. The gernal effect of accumulation of experience is to enhance the influence of preceding items in any skilled series and to depress that of succeeding items.

There may, therefore, be a retraction of anticipation range with the age and if this is so it would undoubtedly produce just that performance for shorter advances and more and longer halts which older performers are known to show.

Knowledge about Diseases of Old Age

Care of the old includes treatment and cure of diseases which old people are susceptible to.

Because of certain inevitable changes in the tissues as a result of ageing, the manifestations of morbid processes are modified. Thus, in the aged many diseases have a different clinical expression and natural course from those encountered in younger persons. The present interest in geriatrics which constitutes the study of diseases of old age was anticipated by Rolleston (1922). Unless the variations due to ageing are made a special study of, medical care of old people will be incomplete and unsatisfactory.

Ageing involves two opposing types of change, namely, evolution or growth and involution or atrophy. Though these changes take place concurrently throughout life, the rates of such changes vary at different ages. In later years, changes due to atrophy of tissues dominate and a study of these changes and their consequences pertains to an understanding of health and morbidity in old age. Many of the special characteristics of medical practice are dependent on the structural and functional alterations which occur in the body due to senescence.

The clinical study of senescence requires knowledge of physiological variations corresponding to the structural atrophy of organs and tissues. Appreciation of such variations passing into abnormalities of function by hardly perceptible gradations is often difficult. For example, certain features of normal old age may be attributable to disorder of a certain part of the nervous system. These features include slowing of movement, absence of nervous gestures, relatively immobile facial expression and a slight bending of the body. When such manifestations are more markedly present, they may be called pathological. This will constitute a departure from normal old age.

Apart from excessive accentuation of involutional processes, certain diseases get modified when they afflict the elderly. These modifications result partly from the different reactions to morbid processes of organs undergoing involution. Thus certain diseases are more acute and others are more benign when they appear in old age. For example, appendicitis in old age is fulminating leading to early gangrene and peritonitis, probably because of atrophy of lymph tissues and sclerosis of blood vessels. There is rapid spread of the disease.

On the other hand, many diseases appear to be more benign in old age. Cancer of the breast, for instance, is slow in development in the elderly. Coronary heart disease has a better prognosis when it occurs in people above 60. This is because of richer network of blood vessels of the heart found in older people. Many diseases in the elderly may remain 'silent' and have insidious onset. Chronic pulmonary tuberculosis may remain undiagnosed and may even be mistaken for ordinary bronchitis in old age. Gastric ulcer, for instance, may cause little or no complaint in the elderly. Perhaps the first indication of its presence may be severe vomiting of blood or perforation. Even acute pneumonia may remain latent and may be discovered only after death at autopsy.

Multiple disease processes are more common in the elderly than in the young. There are many disorders which may exist, like diabetes mellitus, high blood pressure, thickening of arteries, osteoarthritis, all of which may occur simultaneously in one individual. This is due to degenerative processes affecting different tissues of the body. Effective management of elderly patients will depend on early recognition of clinical manifestations of disease and a consideration of the variable and different course of disorders. In many cases no treatment will be required. Assessment of the course of treatment is best made in terms of efficiency. Particularly relevant to the medical care of the elderly, is the recognition of the fundamental principle of medicine, that disease in its broadest sense represent a maladjustment between an individual and his environment. Hence a study of disease in the elderly involves not only an assessment of disorders of function in the patient but also the considerations of the influence of environmental factors. The practical aim of medical care of the aged is to maintain them in a state of functional health and activity. Even the partial restoration of functions makes a considerable difference between a useful and useless life.

The Problem of Gerontology

As medical science progresses, life is bound to be prolonged by control of infection and by other means, resulting in a larger number of people reaching advanced years. This brings about additional problems in the management of degenerative disorders.

The problem of gerontology falls into four major categories:

1. The general biology and physiology of ageing;
2. The psychological changes with ageing;
3. Pathological deviation and disease processes;
4. Socio-economic problems of an ageing population.

The biology of ageing includes studies of heredity ; ageing changes in cellular metabolism, changes in structure and function of tissues and alterations in the functional capacity of the various organised systems of the body as well as the problem of maintaining integration of all organised systems in the animal.

The psychological problems involve the estimation of changes in mental capacities, achievement, learning and education, the characterisation of emotional responses, perceptual abilities, attitudes, behaviour, and personality. Problems of interpersonal adjustment are of great importance.

Pathological deviations refer to studies on the incidence of various diseases as well as studies on the aetiology and treatment of the diseases common among elderly people, such as cancer, cardiovascular disease, renal, metabolic and mental disease.

Problems in the socio-economic field include questions of employment, employability, retirement, social security, methods of medical care for both acute and chronic diseases among the aged, housing, recreation, rehabilitation and retraining.

It is clear, therefore, that the solution of these problems will require the concerted efforts of personnel not only trained in a variety of specific disciplines and techniques but also competent to synthesise and correlate information from many fields.

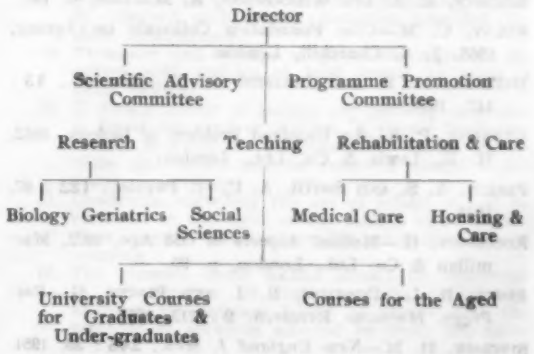
Social pressures resulting from the increased proportion of elderly people in the population, will undoubtedly force communities and Governments to take action on many of the socio-economic issues pertaining to the aged. Public pressure resulting in the provision of adequate funds for research on problems of ageing, however, will lag behind unless laboratories are established for this express purpose. The pursuit of knowledge about basic processes has been and will undoubtedly continue to be an activity of the universities. It is to this group of scientists who can pursue investigation without regard to the practical implications or applicability in the treatment of patients that we must look for advance in our knowledge.

Although many significant contributions to our knowledge about ageing might be made by individual workers in universities and hospitals, the problems concerning gerontology are so complex and important that special research institutes are essential. In order to obtain solutions in a comprehensive manner, co-operative and comprehensive research programmes have to be undertaken with the aid of a special institute.

Such an institute will give opportunity for daily contacts between workers in many scientific disciplines and will encourage coordinated programmes in which the techniques of many different fields of scientists can be applied simultaneously to the same subject material. Sociology and community programme which are at present inadequately served should be associated with the comprehensive institute programmes. One of the major functions of an institute of gerontology is to execute research programmes on ageing. Besides research, the institute will also undertake teaching programme. For this purpose, close association with a university will be desirable. Rehabilitation and care constitute essential services to old people and the institute is to be so designed as to serve as a demonstration project to review and illustrate appropriate techniques for providing these services.

Broadly conceived, therefore, the function of an institute of gerontology should be research, teaching, and service to the aged. Ultimately such an institute should coordinate and utilise the full capacities and potentialities of both a local and university community.

An institute of gerontology should have physical form and substance and should provide for daily contacts between scientists from different disciplines. It should also provide common experimental rooms and space so that collaborative workers in different scientific disciplines can collect observations simultaneously on the same group of subjects. The Director of such an Institute will be assisted by two Advisory Committees, a Scientific Advisory Committee, and a Programme Promotion Committee. Corresponding to the functions of the Institute there will be three divisions namely, research division, teaching division, and rehabilitation and care division. The organisational chart given below summarises the set up of an institute of gerontology :



Conclusion

As the number of aged people is increasing in this country, the problem of the care of the aged is becoming increasingly important. It is not possible for any one country to adopt bodily the arrangements and organisation made for the study and care of the aged in other countries. Socio-economic circumstances differ from country to country. Habits and customs have a great deal to do in the management and care of this particular group of human community. It is accepted that the care of the aged constitute an *important* problem. Studies on all aspects of gerontology as applicable to this country should be conducted, instead of bodily adopting the observations and studies made in other countries. Hence a special institute ought to be established without delay in a place suitable for the purpose. Both from the point of view of fundamental research and from that of the study of the socio-economic aspects, it will be eminently desirable to locate such an institute in association with a university, where facilities will be available for co-ordinated studies.

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CASE NOTE

A LEECH IN THE LUNG

K. SATYASHANKAR, M.B.B.S., D.L.O.

Hony. Medical Officer,
Government Head Quarters Hospital and
Lecturer in Oto-Rhino-Laryngology
Kasturba Medical College, Mangalore

Different varieties of foreign bodies have been reported commonly found in the oesophagus or the lung. Foreign bodies like coins, bones, etc., usually get stuck up in the oesophagus. Comparatively, foreign bodies in the air passages are rare. Therefore a rare case of a leech alive in the lung for a month is being reported.

Case Report

Bairu, a male aged 25 years, reported to the Hospital on 15-7-58 with the following history :

One month ago while he was in a forest, he drank water from a rivulet. Fifteen days later, he felt a wriggling sensation in the throat. He looked into a mirror and saw a black worm. He tried to pick it with his hand but the worm quietly withdrew and disappeared from the view in the mirror. The worm had a special tendency to come up when he drank cold water. It used to come up, off and on and the patient was helpless even though he could see it in the mirror. He had no cough, dyspnoea or dysphagia at any time.

Examination of the patient revealed no abnormality. Later under local anaesthesia oesophagoscopy was done and no worm was found. Immediately bronchoscopy was decided upon and a bluish black soft worm was seen at the midtracheal level. It was very much alive and moving. At this stage a leech was suspected as the possible worm in the trachea. With great difficulty it could be dislodged and removed. The patient was discharged on 16-7-58.

The interesting feature of this case was that the patient had no cough or any other symptoms with a live leech in the lung for a period of one month.

Acknowledgments

I thank Dr. A. Thimmappayya, Superintendent, Wenlock Hospital, Mangalore, and the District Medical Officer, South Kanara, for permitting me to report this case. I thank Dr. G. D. Veliath, Principal, Kasturba Medical College, Mangalore, for encouraging me to publish the case.

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CALCUTTA, SEPTEMBER 1, 1958

INSECTICIDES

Insecticides are our potent weapons in the fight against disease and starvation. Agricultural crops of millions of acres are protected annually from pests, by the timely application of insecticides. D.D.T. and benzene hexachloride (B.H.C.) are of common household use for the control of flies, mosquitoes, etc.

The evolution of more and more powerful insecticides has been the triumph of modern chemistry. But the more their potency, the greater are the risks involved in their use. Therefore very stringent regulations have been enforced in many countries regarding their manufacture, sale and use. But this question has not so far received the attention it deserves, in our country. The folidol tragedy which recently occurred in Kerala[1] has come as an eye-opener. Both the Central Government and the State Government appointed committees to investigate this incident, and the committees have presented their reports and certain recommendations[2].

It might appear unbelievable that a powerful poison like E605 was declared as "harmless chemical", and contamination of articles of food, caused by leakage, was ignored by everyone concerned. Either the laws governing the transport and storage of poisons are defective or they are not strictly enforced.

The use of poisonous chemicals in agriculture and industry, is on the increase. There should be no loopholes for evasion of laws in their manufacture, transport, storage and distribution, and the punishment for infringement of laws should be exemplary. It is equally necessary that regulations similar to those prescribed for the storage and sale of poisonous drugs should be made obligatory for the storage and sale of insecticides too.

There are other problems which merit special attention. For instance, it is known that parathion is very slow in decomposition Therefore the question of residual effect in articles of food sprayed with it, is of extreme importance. The ordinary labourer working on plantations cannot be depended upon to carry out instructions faithfully. There should be adequate safeguards to ensure that labour employed in spraying, and consumers of the treated articles, are fully protected.

We should refer here also to the waste which might result from inadequate dosage or perfunctory treatment. There have been many complaints, about the unprecedented increase of mosquitoes and houseflies, in areas treated with dieldrin, as a part of the anti-filariasis campaign. An explanation was later forthcoming for this, namely, that the egg laying capacity of insects increased if the dose of dieldrin was not fatal. Whatever be the reason, the scepticism produced in the public by such failures cannot be easily expelled and the vast sums of money spent on eradicating diseases like filariasis may not bring the desired results. The use of insecticides should be so planned as to eliminate danger to human life and to ensure maximum economy consistent with efficiency.

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[1] KARUNAKARAN, C. O.—*J. Indian M. A.*, **31** : 204, 1958.

[2] *Recommendations by the Kerala State Food Poisoning Inquiry Committee* :

1. It should be made obligatory on importers of food to report promptly to a Harbour Food Inspector all cases of damages to consignments of food.
2. Suspected outbreaks of food poisoning should be handled in the same manner as major epidemics and articles of food suspected to be contaminated should be seized by the Field Officer and promptly examined by the Public Analyst.
3. Procedure for the seizure and analysis should be so revised as to obviate delay of all kinds.
4. Private godowns were generally found to be in a highly insanitary condition leading to considerable loss and deterioration of foodstuffs. The consumers pay for this loss and the overall quantity of food available gets reduced. Proper enforcement of Food Laws will minimise this. It is also necessary to revise the present laws and make them conform to those in the model Public Health Act issued by the Central Ministry of Health.
5. The sale of insecticides and other poisonous drugs should not be permitted in shops where articles of food are sold.
6. Now that rayon and plastic wrappers are available at low cost, the possibility of giving an inner lining with this material to gunnies in which articles of food like sugar, flour etc., are packed deserves serious consideration.
7. Methods of packing and distribution of insecticides and other poisons should ensure 100 per cent safety.
8. Loopholes in the existing shipping regulations which lead to evasion by false declaration should be plugged and drastic penalties provided for their infringement.
9. Transport and storage of poisonous materials together with articles of food should be made a penal offence.
10. If during transit or storage any packing of poison is found damaged or leaking, it should be immediately reported to the concerned health authorities and should not be removed except under proper supervision.
11. Conditions regarding the use of folidol should be reviewed in the light of the results of an immediate enquiry into the possible residual effects of spraying.
12. The planters using folidol should be instructed to get samples of their products periodically analysed for residual folidol to ensure that the methods of spraying adopted by them are satisfactory.

CURRENT MEDICAL LITERATURE

Respiratory and Cardiac Arrest During Anaesthesia in Children

RAINER, E. H. AND BULLOUGH, J. (*Brit. M. J.*, **2** : 1024, 1957) from Dartford describes a new method of resuscitation after respiratory and circulatory arrest which has been successfully employed on eight children. There has not been one single fatality. The method consists basically in intermittently flexing and extending the whole body, to which may be added positive-pressure inflation of the lungs with oxygen.

It is believed that the method represents a sound and effective approach to dealing with cardiac arrest in children. Though it has been used by us only in the operating theatre, we think it may have wider applications.

It is more rapidly and more easily applied than other methods.

Five illustrative cases are reported.

Steroids in Treatment of Asthma

During the last two years cortisone has been partly replaced in the treatment of asthma by the delta derivatives prednisone and prednisolone. The latter drugs are five tmes more potent than their predecessors and seven times more expensive, but they have the advantage of virtually no salt-retaining effects. All these compounds suppress the symptoms of allergic disease if used properly, often to an extra-ordinary extent. They are in no sense a cure. As well as obviously lessening the bronchospasm, they help in the improvement of the patient's general condition and morale and enable him to tackle his disease more successfully. There is yet little or no understanding of the mechanism by which these hormones produce their effects.

They are not without danger. Long-term treatment causes suprarenal atrophy, with the result that the patients are apt to die suddenly, or else have severe stress reactions if injured in an accident, if subjected to an operation or anaesthetic, or if an acute infection develops. Liability to infection is in any case increased, since steroids reduce the body's resistance; and this includes tuberculosis. No patient with any suspicion of active tuberculosis should be treated with steroids if it can be avoided, and it may be necessary to combine steroids with antituberculosis drugs. Particular care is also worth taking if steroid therapy has to be given to a diabetic. Other dangers are the development of peptic ulcers and a liability to their perforation and haemorrhage, osteoporosis, with occasional development of fractures, and acute psychotic states, especially in those patients who have a history of mental illness. R. A. Kern has published interesting mortality statistics from the United States, where the total death rate has steadily fallen since 1939. The death rate of patients with chronic or rheumatoid arthritis remains level. But deaths from asthma suddenly increased in 1951 by nearly one-half, and this increase has been maintained. This is the period when steroid therapy has been in vogue. The rise is mainly confined to patients between 50 and 79 years of age. There is no proof that steroid therapy is the cause of the sudden rise, but the figures are alarming. Steroids were not released for general use in Great Britain until 1956; the Registrar-General's published statistics have not yet reached this period, and they will be awaited with interest.

Steroid therapy is undoubtedly a most valuable method of treatment for severe chronic asthma and status asthmaticus. Moreover, in the elderly chronic bronchitic when bronchial obstruction is severe and not responding to antibiotics and antispasmodics, its early administration while continuing the antibiotics is often helpful. It reduces hospital stay and saves beds at a time when they are precious in areas where chronic bronchitis is endemic, and these steroids do not affect the suprarenal glands adversely, provided they are used on a short-term basis.

Steroids are readily prescribed and administered in general practice, but they are best reserved for those cases in which full treatment without them has failed, and a consultant opinion is normally worth obtaining before beginning them, especially in the case of children. They should be given in short courses starting with a large dose and lessening it daily. A good scheme is to start with 300 mg. of cortisone on the first day in the form of twelve 25-mg. tablets, and reduce the dose by one tablet daily. The course will thus last twelve days. Prednisone and prednisolone are given in one-fifth of the dosage, and as the tablets are 5 mg. each the same number are used. The importance of this procedure is to protect the suprarenal glands from damage. The course can be repeated in two or three months. Some physicians believe that if long-term oral treatment has to be carried out it is advisable to give in addition periodic injections of A.C.T.H.-gel to stimulate the glands and prevent atrophy. There is an advantage in giving cortisone rather than the newer steroids apart from the economy. The newer steroids are more potent and in equivalent doses have the same side-effects except that the warning of rapid gain in weight and oedema does not occur. Consequently there is a greater risk of danger, especially when large doses are used. They also cause suprarenal atrophy. In spite of the dangers of steroid therapy in cases of asthma, especially when given in small doses over a long period, manufacturers are selling individual combinations of steroids with aspirin, antihistamines, antispasmodics, and aluminium hydroxide. It is safer to use the drugs separately, each in the appropriate dose for the patient under treatment. In short, steroids have made a great difference to the treatment of severe chronic asthma, but they have their dangers (*Leading Article, Brit. M.J.*, **1** : 1166, 1958)

Tuberculosis in Joints and Tendon Sheaths Activated by Local Treatment of Hydrocortisate

JORGENSEN, K. S. (*Ugesk. laeger, Kobenhavn*, **120** : 632, 1958) writes :

The danger of local treatment with hydrocortisate in the presence of acute or chronic infection is pointed out and illustrated by a report of 4 cases. Of these, two were cases of tuberculosis in the knee joint, one of tuberculosis in the forefoot and one of tuberculosis

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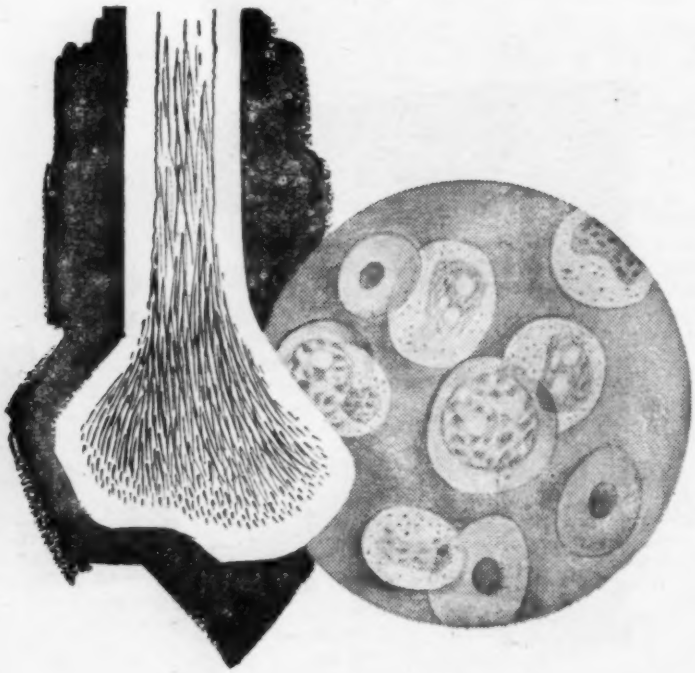

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in the synovial flexor sheath of the hand. In the cases reported, it is considered that a causal connection can be demonstrated between the injection of hydrocortisate and activation of an apparently latent tuberculous process. Further, two cases of tuberculosis of the knee are mentioned. These were treated with hydrocortisate but the correct diagnosis was established immediately and specific therapy instituted before further activation of the condition had taken place.

The value of meticulous diagnostic investigation of the patient prior to injection of hydrocortisate and particularly if the injection gives rise to marked or abnormal local reaction is pointed out.

Detailed history taking in view of possible tuberculosis is of significance but is not always sufficiently informative. In only one of the 6 cases recorded here information was obtained as regards previous pulmonary tuberculosis. The diagnosis must thus most frequently be based upon x-ray examination and, in suspicious cases, aspiration and biopsy (*Author's summary*).

Eczematous Complications in Treatment of Tuberculosis

CRISSEY, J. T., OSBORNE, R. D. AND JORDON, J. W. (*J.A.M.A.*, **165**: 1526, 1957) of Buffalo, write that in 37 patients with tuberculosis under treatment with dihydrostreptomycin, aminosalicylic acid, and isoniazid in various combinations, eczematous reactions appeared which resembled nummular dermatitis, seborrhoeic dermatitis, and a combination of both. By observing the drugs being given when the eruptions began and the response of the eruptions to selective withdrawal of the drugs, it was concluded that aminosalicylic acid is the chief cause, that dihydrostreptomycin is an occasional cause and sometimes a prolonging factor, and that isoniazid is not involved. From the frequent finding of dihydrostreptomycin-resistant micrococci in the skin lesions, it was postulated that a disturbance in the normal bacteriological flora of the skin might underlie these eruptions. Management includes an initial attempt at control by topical means, the withdrawal of aminosalicylic acid, or, in severe cases, the judicious use of steroids in combination with the chemotherapeutic agents.

Ophthalmic Decongestants in Allergic Conjunctivitis

JUFT, L. AND NEISH, D. D. (*J.A.M.A.*, **167**: 60, 1958) from the Clinic of Allergy & Applied Immunology, Temple University Hospital and School of Medicine, Philadelphia give in the following lines the summary of their observations on the comparative study of ophthalmic decongestants in allergic conjunctivitis:

Comparative studies of ophthalmic solutions containing such ingredients as epinephrine, phenacaine (Holocaine) hydrochloride, hydrocortisone acetate, cortisone acetate, and chlorprophenpyridamine (Chlor-Trimeton) in various vehicles plus the proprietary product, Estivin (aqueous infusion of rosa gallica L.), were done in patients with induced allergic reactions of the conjunctival mucosa. These studies showed that freshly prepared solution of epinephrine (1 : 1,000) in rose water was the best ophthalmic decongestant of any of the products tested. Little or no effect was obtained from the corticoid preparations. These would seem to offer no special advantage in patients with acute allergic reaction of the conjunctival mucosa.

Allergy Treatment in Recurrent Nasal Polyposis

BLUMSTEIN, G. L. AND TUFT, L. (*Am. J. M. Sc.*, **234**: 269, 1957) from the Clinic of Allergy & Applied Immunology, Temple University School of Medicine, Philadelphia, from an analysis of the results of allergy treatment in a group of 160 patients with mucous nasal polyps observed over long periods of time point out:

Seventy-two per cent of the entire group had asthma, indicating that most polyp patients are potential asthmatics.

This group could be subdivided into those that required not more than a single polypectomy (76 patients) and those that required multiple surgical procedures (84 patients). Since remissions were often spontaneous in the former, it was decided to judge the efficacy of allergy treatment on the latter group where the rate of recurrence was established.

Allergy treatment prevented recurrence in 46·8 per cent of this latter group.

An additional 21 per cent were partially benefited, as judged by the lengthened interval between polypectomies.

A group of 24 patents (31 per cent of the recurrent group) failed to respond to allergy treatment, either alone or combined with other forms of therapy. In this group were many intractable asthmatics.

Twenty patients (12·5 per cent of the entire series) were aspirin-sensitive.

Best results were obtained in the so-called 'sensitive' group where specfic allergies were identifiable and controllable.

Postoperative Hypotension

BARBOUR, C. M. AND LITTLE, D. M. JR. (*J.A.M.A.*, **165**: 1529, 1957) from the Department of Anaesthesiology, Hartford Hospital, Hartford, Conn, write that hypotension, defined either as systolic pressure below 90 mm. Hg. in an initially normotensive patient or as systolic pressure more than 40 mm. below the preoperative readings in a hypertensive patient, developed in 180 out of 5,463 patients observed in a hospital recovery room. Onset of hypotension could usually be explained as cardiovascular, respiratory, pharmacological, neurogenic, haematologic, or humoral in origin, and consideraton of these six possibilities was helpful in deciding on appropriate treatment. Four cases are cited to illustrate, respectively, the possibilities of cardiovascular origin (myocardial infarction during operation), pharmacological origin (cyclopropane and muscle relaxants), neurogenic origin (genitourinary surgery), and humoral origin (interruption of long-continued hormone therapy). In the fourth case recognition of the cause led to the administration of hydrocortisone intravenously with prompt restoration of a normal blood pressure. The authors believe, however, that the most common cause of postoperative hypotension is that group of haematological factors which include transfusion reactions, haemolysis due to distilled water during transurethral resections, and acute or chronic loss of blood.

Roentgenology and Gastroscopy in Gastric Disorders

ROSSEIN, A. X. AND STANTON, A. (*Am. J. Gastroenterol*, **29** : 499, 1958) from Queens General Hospital, Jamaica, N.Y. give in the following lines the summary of their observation of gastric roentgenologic and gastroscopic impressions of 58 patients with gastric disorders :

The impressions were in agreement in 35 (60·3 per cent) cases. Fifteen (25·8 per cent) additional patients had definite evidence of lesions only on gastroscopy. Thus a total of definite gastroscopic impressions was gained in 50 (86·2 per cent) patients. In addition to the aforementioned 35 patients there were five (8·6 per cent) cases with only definitive gastric roentgenologic impressions. There were 3 (5·2 per cent) cases upon whom no definitive impressions were obtainable with either method of examination.

A total of 21 (36·2 per cent) patients presented evidence of gastric ulcerations. These impressions gained by both methods of examination were similar in 11 (52·4 per cent) of the ulcers observed. Six (28·5 per cent) additional gastric ulcer cases were observed only on x-ray study, which brings the total observed on roentgenology to 17 (80·9 per cent) of the aforementioned 21 patients with gastric ulcerations. This lesion was brought into view on gastroscopy alone in 4 (19·0 per cent) cases, thereby, making a total of 15 (74·4 per cent) instances where gastroscopy was contributory in the 21 diagnoses of gastric ulcer.

An impression of gastric neoplastic malignancy was arrived at in 9 (15·5 per cent) of the 58 patients studied. Six (66·6 per cent) of these 9 cases were observed *via* both methods of investigation. The remaining 3 (33·3 per cent) impressions were reached only on roentgenology, probably due to the patients' improper preparation and/or lack of cooperation for gastroscopy.

It is a well established fact that of the two methods used in our evaluation the impression of existing gastritis had best be limited to the gastroscopic findings. Twenty-three (39·6 per cent) patients, under gastroscopy, presented evidence of gastritis. These 23 cases were categorised as 14 (60·8 per cent) hypertrophic gastritis, 4 (17·4 per cent) superficial gastritis, 3 (13·0 per cent) atrophic gastritis and 2 (8·7 per cent) mixed varieties of gastritis. Four (50 per cent) of our 8 duodenal cap and 9 (42·8 per cent) of the 21 gastric ulcer patients presented evidence of accompanying gastritis, which is considerably less than usually reported. The incidence of gastritis accompanying these latter two lesions is undoubtedly greater, depending on what stage of the disease the patient is gastroscoped.

Diagnosis Difficulties in Carcinoma of the Colon

CHAPNICK, H. A. (*J. Michigan M. Soc.*, **56** : 471, 1957, Ref. *Am. J. Gastroenterol.*, **29** : 550, 1958) discusses principally the less usual pictures of carcinoma of the colon. 1. The patient known to have had diverticulitis for years. Even at laparotomy, the problem may not be resolved. 2. Chronic ulcerative colitis, without any new symptoms, and it may be impossible for the roentgenologist to determine whether the mucosal changes are due to pseudopolyps or carcinoma. 3. Fever with few or no other symptoms. 4. Symptoms due to metastasis, e.g., to the ovary, bladder, lung, etc. The primary lesion may be causing few or no symptoms. 5. Carcinoma of the flexures of the colon. Even at laparotomy, the surgeon may not be able to palpate such a lesion. 6. Carcinoma of the caecum, in which the symptoms are referred to the upper abdomen. 7. Symptoms of complete obstruction, in which the preceding symptoms have been evanescent or mild. 8. Carcinoma in which the symptoms are blamed on some preceding illness, e.g., gallstones. 9. The personality of the patient. The patient may not wish to admit to himself that he is ill. 10. The family. The family may refuse operation because the patient is elderly.

Cardiospasm or Carcinoma? The Roentgen Findings

MARSHAK, R. H. AND ELIASOPH, J. (*Am. J. Digest. Dis.*, **2** : 11, 1957, Ref. *Am. J. Gastroenterol.*, **29** : 549, 1958) write :

Carcinoma of the fundus of the stomach may extend into the lower oesophagus, insidiously narrowing the lumen, and produce roentgen features simulating cardiospasm. The identification of the mass in the fundus of the stomach, an eccentric oesophageal lumen, and alterations in the position and contours of the oesophagogastric region are the significant points to be noted in differentiating the two lesions.

Oesophagoscopy is extremely important but, as the mucosa is often intact over submucosal cancer, the oesophagoscopist may depend on accurate radiologic diagnosis for choosing the best location for a biopsy specimen.

Of special interest is the occasional case of cardiospasm of long standing that may develop a carcinoma involving the lower oesophagus. Any change in symptomatology, particularly in obstructive manifestations, or in the roentgen appearance of the oesophagogastric junction, should suggest the possibility of a superimposed carcinoma.

Fractures of the Parietal Bone in Children

ELLIS, M. (*Lancet*, **1** : 1048, 1958) from the Casualty Department, General Infirmary, Leeds, reports twelve small children in whom a soft swelling developed over a parietal bone some days after an injury. In eleven cases there was a subjacent fracture of the parietal bone, and the swelling was spontaneously absorbed within three weeks.

The lump has special characteristics. In some children rather long hair over it makes it difficult to see without careful scrutiny. Palpation, however, reveals a soft cystic swelling on one side of the head and of appreciable size—usually 3 or 4 inches in diameter. It is roughly circular and not bounded by any of the suture lines of the skull. Its edge is fairly easy to define but not clearcut. There is no bruising in the overlying skin or superficial fascia. The swelling is uniformly soft and bears no resemblance to the ordinary heamatoma of the scalp, with its soft centre and firm edge.

It is postulated that this swelling is due to a leak of c.s.f. and blood from a subjacent tear of the meninges, through the fracture line into the space below the galea aponeurotica.

CURRENT TOPIC

ON BEING A MEDICAL EDITOR

In American terminology I have been a medical editor for just over twenty years. Now I am also a medical editor in the British sense. The distinction is simple enough. In America anyone and everyone on the editorial side of a journal or magazine is an editor and edits. British practice is more conservative. There is only one editor and he alone edits whatever it may be. Hence the regular and sometimes plural dignity of the capital Editor—even if he is obsessed and inferior and anything but. Hence also the absolute authority of 'the Editor's decision is final' when the distribution of five-pound prizes, public houses, racehorses or all-your-groceries-for-life is the subject of competitions carefully geared to challenge the intelligence of the lowest common moron.

Being any kind of an editor is fun and grief. It is rewarding and frustrating, alternatively full of hope and of despair. Editing is a special kind of creative fury involving materials raw beyond belief. This is especially true for a medical editor.

Pick up any ordinary general magazine that has a large circulation and glossy pages. All the way through it you will recognise the names of writers and artists and photographers. These are the names of highly skilled and highly paid professionals.

Now look at whichever medical journal lies nearest to hand. You will recognise some of the names here, because they are highly skilled and highly, or poorly, paid consultants and specialists. Their local fame, or even their international fame, stems from their professional skills—and the profession is Medicine. At writing they are almost without exception the veriest amateurs, and ungifted ones at that.

In Great Britain I know of only eight doctors—out of 85,594 on the *Medical Register*—who can write what people can read. And by people I mean patients. I mean the populace whose pennies create circulations in the millions for the dailies and the best known weeklies. Over the past twenty years I must have come across perhaps eighty or ninety doctors who could write what doctors can read (I am talking about typescripts and not the squiggles of calligraphy).

It appears to me that the rates per 10,000 are easily calculable without the aid of a statistician. There will be one doctor who can write what millions of patients and potential patients will read. There should be nine who can write an article so readable that it will incite a medical editor to give his entire staff time off to celebrate.

That leaves 9,990 doctors who will write. No one can stop them. No one wants to. But every single one of them wants to be published. The urge to publish something in a medical journal seems universal in the doctor's world. It brings prestige and acclamation. It looks well in the *Medical Directory*. It reads well on applications for a job. There is every reason in the alphabet for sitting down and writing an article on actinomycosis in Abyssinia, a bulletin on byssinosis in Burnley, a contribution on coccidiosis in the Cocos Islands, a dissertation on dysdiadochokinesia in Dunstable.

Thus far, reason prevails. Then some malady, as yet ill-defined and insufficiently studied, overtakes the would-be author. He plunges into what Thomas Wakley was talking about in 1823 when he said, 'Consequently we shall exclude from our pages the semi-barbarous phraseology of the schools and adopt as its substitute plain English diction.' He seeks the most elaborate and abominable circumlocutions and does everything possible to make what might be of interest duller than ditchwater. How seldom you can have read an article beginning like this:

> 'I have often seen swimmers bitten by jelly-fish. So in the last ten years I have studied 287 swimmers and 49 jelly-fish. The others got away.'

How often you must have struggled with the same facts clouded by wholly barbarous jargon, like this:

> 'The writer has had occasion over the preceding decade to treat with varying degrees of success swimmers who have suffered a variety of varying lesions of differing degree, following cases of contact of varying types with varying types of *Coelenterata* which abound in these subtropical seas. Altogether in the period under review there have presented themselves for investigation and study some 287 swimmers and a total of 49 *Chrysaora isosceles*. The writer regrets that a fuller study was not possible owing to the tentacular agility of the majority of them'.

One of the prime pains of editorship is taking material of this kind and making it at least moderately readable. Outright rejection of any article so turgidly written is a relief. The decision to publish is made painfully and slowly, often with the assistance of expert advisers. Any medical editor who is really editing the journal for which he is responsible has a legion of top-flight advisers. He does not always take their advice, but he always seeks it.

Rejecting expert advice and backing your own judgment is one of the rewards, one of the pleasures of editorship. There are no doubts legally about the position and the responsibilities of an editor. Writs are addressed to the Editor just as certainly, though fortunately not as frequently, as letters from aggrieved readers or rejected contributors. It is the Editor who goes to prison for the more dramatic errors of his subordinates. Editors have 'done time' in the past and will do so again in the future—which is as it should be. The Editor is solely responsible in law for everything that appears in print in his journal. Being on holiday when it all happened is supremely irrelevant; he still goes to prison or pays a swingeing fine.

No Committee or board or band of brothers can edit successfully even a parish magazine. Most journals have boards or committees in the background, and indeed committeemanship is almost an obligatory qualification for editorship today. But each day and every day there are decisions to be made and they must flow from one man. When there is a conflict between what the Editor wishes and what a committee wishes, the Editor wins.

He is in a position to act; they are not. And any editor who cares about what he is doing is not open to pressure or moral suasion. Committees and boards may grind and bind about exceeding small details, but they can rarely do more than that. The Editor knows and they will know one of the harsher facts of life. There are scores of medical men who would like to be medical editors. There is less than a handful of demonstrably good medical editors, so that there are many more medical journals than there are good medical editors. The dice are loaded in favour of the few—and any reasonably sensible board or committee knows just how heavily.

So a medical editor is in a position both of trust and power. There is a tradition, a dying tradition, of editorial anonymity in this country. Yet it has never prevented a single editor from stamping even the most stylised journal with his own character and his own imprint.

This is effected in many ways. The tone and tenor of leading articles always reflect the editor. The subjects chosen for annotation bear witness to his interests. So does the selection and the arrangement of the articles that once began 'the writer has had occasion. . . .' Most of such articles require treatment. Many of them get the full treatment. This means different things in different editorial offices, but here is a not unusual sequence of events.

Dr. C. B. A. Smith submits a 5,000-word article with three graphs and six tables. It is read by an assistant editor and not rejected outright. Seven other articles that he read at home the same evening are already winging their way back with polite but formal rejection slips. An adviser who has promised to read the article critically, when he gets back from Uganda or Atlantic City, says some months later that it will pass with a push.

A careful letter to Dr. Smith suggests cutting the graphs to one, the tables to two and the text to 3,000 words. A Dutch auction then proceeds through several letters and as many weeks. Reluctantly Dr. Smith has a bash at his brain-child. It comes back as a 4,000-word article with two graphs and five tables. One of the medical assistant editors, known as medical sub-editors in my early days, then takes up a scalpel-sharp blue pencil.

After some concentrated hours of editorial surgery, certain major excisions and sundry plastic repairs and short-circuiting sutures are under way. The first three pages of typescript are scrapped. The Conclusion that took up four pages boils down to a half-page Summary. The strong section in the middle moves up front. Repetitions disappear. Commas and semicolons begin to be used the way Fowler likes them. Stealthily a path is chartered through the jungle of original jargon.

The thing is on the way to get a beginning, a middle and an end. References are checked, and invariably found wrong. Two graphs are redrawn to make one that a printer's engraver can work from, and five tables are re-ordered to make two only. The whole thing is marked up for type sizes, cross-heading, side-headings and the rest. The end-result is one graph, two tables and 2,500 words. And the Editor pats the assistant editor approvingly on the head when Dr. C. B. A. Smith sends back his author's proof with a note: '. . . . it does seem to have turned out quite well and I'm so glad you made so few alterations to my second draft.'

That indeed is one of the secrets. Cut and chamfer so skilfully that the author takes it and likes it. Another is the tone of voice in which you say No. Every editor spends a lot of his time saying No. You can say it and write it so that people hate your editorial guts. A few editors do just that and then sound hurt and wounded when would-be contributors react as if they were human. Most editors, and certainly most medical editors, take the more difficult line. They say No just as often, but they say it politely and, now and again, so diplomatically that no lesion of self-esteem is sustained by even the dullest and most sensitive would-be.

There are many other secrets, but none of them in the wartime Top-Secret-Burn-Before-Opening class. To be a good medical editor you have to know quite a bit about a whole series of highly non-medical subjects. Typography, advertising, paper, printing processes, schedules and deliveries, indexing, costing, photographers, artists, libraries, office management, filing, bookkeeping, block-making, accountancy, publishing and administration generally. You need a superficial but universally broad knowledge of everything that is going on in every speciality and in all the basic sciences. You need some command of food and drink, since a lot of persuasion goes on over lunch tables and at dinner.

The reason for this is simple, too. The people you don't want to write, all write all the time. The few top-quality people whose articles you do want to commission are too busy—and don't need the publicity. Money they score at sixpence in the pound or scorn, and your only hopeful access to them is gastronomic.

There are many other things you need, but only one of them is important. The late Wickham Steed put it clearly when he said that an editor owes three duties—to his readers, to his staff and to his proprietors, in that order. The first duty is always to the reader. In the long haul it is readers who make or break editors. And, praise be, there is no such thing as an average reader. Otherwise editors, medical and lay, British and American, would have to work to average rules—and then anybody could do it.

Well, practically anybody.

—*The Glaxo Volume* (No. 16), pp. 44-48.

NOTES AND NEWS

Postgraduate Training Facilities for Indian Doctors in Canada and U.S.A.

The Indian Medical Association has been able to secure postgraduate training facilities for Indian doctors in Canada and U.S.A. through the help and courtesy of the Canadian and American Medical Associations and the authorities of the hospitals concerned. A list of 41 doctors who have recently gone or are shortly due to go to those countries for residency/internship training is appended.

Name	Subject	Hospital
CANADA :		
1. Dr. A. K. Chakrabarti (Calcutta) ...	Anaesthesiology	Royal Victoria Hospital, Montreal, Quebec
2. Dr. Chhabi Bhushan (Lucknow) ...	General surgery	Ottawa General Hospital, Ottawa, Ontario
3. Dr. Satyendra Sahay (Patna) ...	—do—	—do—
4. Dr. Bhim Sain Gulati (Sewani, Punjab)	—do—	—do—
5. Dr. S. M. Sen Gupta (Calcutta) ...	—do—	—do—
6. Dr. C. R. Dutta (Calcutta) ...	Otolaryngology	Royal Victoria Hospital, Montreal, Quebec
7. Dr. Jai Narain (Lucknow) ...	—do—	—do—
8. Dr. V. Anantharam (South Coorg, Mysore State)	—do—	—do—
9. Dr. O. N. Srivastava (Lucknow) ...	Psychiatry	Ottawa General Hospital, Ottawa, Ontario
10. Dr. P. N. Mehta (Bombay) ...	—do—	—do—
11. Dr. (Miss) Hemu Ramdas (Secunderabad)	Obstetrics-Gynaecology	—do—
12. Dr. Daya Ram Yadav (Lucknow) ...	Rotating internship	—do—
13. Dr. Ram Ruchhpal Singh (Srinagar)	—do—	—do—
14. Dr. B. K. Swain (Cuttack) ...	—do—	Winnipeg General Hospital, Winnipeg, Manitoba
15. Dr. D. N. Gupta (Delhi) ...	Tuberculosis	Saskatchewan Anti-Tuberculosis League, Fort San, Saskatchewan
U. S. A. :		
16. Dr. D. G. Lanjewar (Nagpur) ...	Anaesthesiology	Jewish Hospital, Brooklyn, N.Y.
17. Dr. S. N. Banerjee (Calcutta) ...	Orthopaedic surgery	—do—
18. Dr. K. G. Gulati (Dalmianagar) ...	—do—	Albert Binstein Medical Center, Philadelphia, Penn.
19. Dr. Ahmed Usman (Hyderabad) ...	Internal medicine	Burlington County Hospital, Mount Holly, New Jersey
20. Dr. Adikanda Swain (Cuttack) ...	—do—	—do—
21. Dr. Ajit Kumar Datta (Calcutta) ...	—do—	Lincoln Hospital, New York, N.Y.
22. Dr. R. P. Joneja (Delhi) ...	—do—	French Hospital, San Francisco, California
23. Dr. V. Krishnaswamy (Manipal) ...	—do—	Lincoln Hospital, New York, N.Y.
24. Dr. S. C. Sarkar (Katihar) ...	General surgery	St. Paul's Hospital, Dallas, Texas
25. Dr. K. V. Raghavaiah (Tenali) ...	—do—	Burlington County Hospital, Mount Holly, New Jersey
26. Dr. Gopal Nandan Prasad (Patna)	Otolaryngology	Nashville General Hospital, Nashville, Tennessee
27. Dr. V. N. Samuel (Coimbatore) ...	Neurology	North Carolina Memorial Hospital, Chapel Hill, N.C.
28. Dr. (Miss) S. J. Shahani (Poona) ...	Paediatrics	Graduate Hospital, Philadelphia, Pa
29. Dr. (Miss) Nirmala Dudani (Delhi)	Obstetrics-Gynaecology	Lakewood Hospital, Lakewood, Ohio
30. Dr. Suraj Prakash (Delhi) ...	Rotating internship	St. Joseph Hospital, Kansas City, Mo.
31. Dr. M. D. Bhambhani (Bombay) ...	—do—	Overlook Hospital, Summit, N.J.
32. Dr. M. N. Tandon (Lucknow) ...	—do—	St. John's Hospital, St. Louis, Mo.
33. Dr. S. K. Baruah (Dibrugarh) ...	—do—	—do—
34. Dr. Sharad Kumar Dicksheet (Nagpur)	—do—	La Crosse Lutheran Hospital, La Crosse, Wisconsin
35. Dr. N. K. Dey (Nagpur) ...	—do—	Frtnch Hospital, Sanfrancisco, California
36. Dr. L. M. Aga (Delhi) ...	—do—	Monmouth Memorial Hospital, Long Branch, N.J.
37. Dr. D. V. Reddy (Hyderabad) ...	—do—	Fairview Park Hospital, Cleveland, Ohio
38. Dr. V. S. Ramachandran (Nagpur)	—do—	Euclid Glenville Hospital, Euclid, Ohio
39. Dr. Debabrata Chakrabarty (Calcutta)	—do—	St. Francis Hospital, Bronx, New York
40. Dr. T. Gopinathan (Trivandrum) ...	Dermatology	Pennsylvania Hospital, Philadelphia, Pa.
41. Dr. B. K. Das (Baripada) ...	—do—	City Hospital, Cleveland, Ohio

Donations to I.M.A. Exempt from Income Tax

It is notified for general information that on representation by the Indian Medical Association, the Income Tax Officer, B-XIII District, New Delhi, has certified that donations made to the Indian Medical Association are entitled to exemption under Section 15B and further that the income of the Association is exempt under Section 4(3)(1) of the Indian Income Tax Act.

Union Government Accepts Commission's Recommendations on Kerala Food Poisoning Cases

The Government of India have accepted the findings and recommendations of the commission* which inquired into the recent food poisoning cases in Kerala and Madras, Mr. D. P. Karmarkar, Health Minister, told the Lok Sabha on August 11.

The commission had held in its report published last month that there was "faulty storage of folidol" resulting in contamination of foodstuffs in *S.S. Jai Hind*.

Mr. Karmarkar said the Government of India had conveyed its views as regards legal liability, in the light of the commission's findings, to the Governments of Kerala and Bombay.

Meanwhile, he said, the Kerala Government had registered cases against a number of persons under Sections 304A and 284 of I.P.C. Three officers of *S.S. Jai Hind* had also been prosecuted under Section 225 of the Indian Shipping Act, 1923.

The Minister said the Kerala Government had accepted the commission's recommendation that foodstuffs seized by it should be released only after certain tests had been made.

Mr. Karmarkar said the implementation of the commission's recommendations would be in two parts: on some decisions would take a short time and on others longer time.

Outlining action already taken, the Minister said that the insecticides which were highly toxic had been notified as 'poisons' under the Poisons Act, 1919. The State Governments had been advised to declare these insecticides as 'poisons' under the relevant State Acts. This declaration would facilitate measures for the storage, packing, sale and labelling of insecticides. In addition, he said, these insecticides would also come under the category of "dangerous goods" for the purposes of transport by sea or rail and would be subject to the restrictions applicable under the rules made under the Indian Merchant Shipping Act and the Indian Railways Act.

Mr. Karmarkar said the States had been requested to regulate the storage, packing, labelling and sale of insecticides by making suitable rules under the Poisons Act.

Steps, he said, were also being taken to enforce safety measures in the factories dealing with insecticides to ensure that import trade control licences were issued only to sole agents of manufacturers of insecticides.

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* The recommendations of the commission will be found elsewhere in this issue.

World Congress on Fertility and Sterility

The third World Congress on Fertility and Sterility will be held in Amsterdam in The Netherlands from June 7 to June 13, 1959. The themes of the Congress are: (1) Embryonal death; (2) Hormonal Factors and vitamins in fertility and sterility; (3) Relative value of the techniques for the study of endocrine functions in human sterility; (4) Biochemistry of spermatogenesis; (5) Psycho-sexological problems in sterility.

Registration fee for full members is $15. Titles of papers should be submitted to: Dr. Alfonso Alvarez-Bravo, Mexico City 5, D.F., Mexico or to Prof. Dr. B. S. ten Berge, C/o. Academic Hospital, Groningen, The Netherlands. Further information may be had from the Secretariat of the Congress at 4 Sint Agnietenstraat, Amsterdam-C, The Netherlands.

Contributory Health Service Report for 1957

The Union Ministry of Health has drawn up a phased programme for the expansion of the Contributory Health Service during the current financial year, according to the report on the scheme's working for 1957.

It is proposed to raise the number of dispensaries to 30 against the present 24 static and three mobile ones. The specialist departments in Willingdon and Safdarjung hospitals will also be strengthened.

The report says that during 1957, the average monthly and daily attendance respectively was 2,70,911 and 10,676 cases as compared to 2,46,855 and 10,332 in the previous year. The highest number of cases was in August, 1957, due largely to the influenza epidemic and increase in the population served by the scheme from 3,20,000 to about 4,00,000.

In 1954 there were 16 dispensaries, 2,23,000 beneficiaries and 4,504 average number of cases daily. The number of medical officers, including specialists, at the end of 1957 was 123 as against 40 in 1954.

Of the four new dispensaries planned to be added, two started functioning in January, 1958, the third in Chanakya Puri in February, 1958, and the fourth in Seva Nagar was expected to be opened before the end of this financial year.

Arrangements were also made for giving advice in family planning. Eight family planning centres in various localities (Lodi Road II, Vinay Nagar East, Vinay Nagar II, Willingdon Hospital, Karol Bagh I, Subzimandi, Minto Road and Chandni Chowk) were functioning during the year in association with the C.H.S. dispensaries. Advice on family planning has also been made available at the Central Secretariat dispensary. Contraceptives were sold at cheap rates or supplied free to those with an income below Rs. 100 per mensem at these centres. Other social activities like mothers' clubs, free film shows, group talks, free distribution of milk etc. were organised.

The expenditure on the scheme during 1956-57 was Rs. 30·45 lakhs while the amounts realised as contribution from Government servants, semi-Government bodies, the Ministries of Defence and Railways and the D.G., P. & T., was Rs. 20,81,782. The revised estimates for 1957-58 amount to Rs. 39·74 lakhs against Rs. 22·13 lakhs expected to be recovered as contribution.

In respect of tuberculosis, the report observes that no importance should be attached to the sharp decline between 1955 and 1956 as there is no reason to believe that with an increase of beneficiaries there should be such a remarkable fall. The reason for this perhaps lies in the fact that the 1955 figures include a back-log of cases which came up for treatment in the earlier period of the working of the scheme.

The report remarks: "The incidence and the nature of morbidity recorded at the dispensaries during the last three years fairly brings out that a large proportion of illness is preventable and arises from factors concerned with environmental sanitation, personal hygiene and nutritional status. Environmental sanitation including food hygiene is a matter of great importance, even in this metropolitan town where water supply and sewage facilities are available on a considerable scale. The benefits of these tend to be more than counter-balanced, however, by the enormous increase in population within a comparatively short period. The inevitable sequelae of this have been overcrowding, haphazard growth of new residential colonies and a worsening of the slum conditions. Apart from this, the fact that a considerable proportion of the displaced persons settled in the city, set up small and big eating houses out of what meagre resources they had, to earn their livelihood has led to a state of affairs where potential foci for the spread of infection are present at every street corner."

Manufacture of Drugs in India

An indication of the drugs and medicines which India would like to manufacture with the help of the Soviet financial assistance of Rs. 8·8 crores was given in Delhi on August 5 by Mr. Manubhai Shah, Union Minister of Industry.

He told the Soviet team of experts on drug manufacture when it called on him that though considerable progress had been made by the Indian pharmaceutical industry, efforts had to be made to fill the gaps in the production of synthetic drugs, alkaloids from Indian medicinal plants, hormones and other vital drugs and medicines. Perhaps, some additional capacity for antibiotics might also be required over the present production at Pimpri and elsewhere. India was also anxious to develop the manufacture of medical instruments and equipment.

Mr. Shah added that during the current year, the Government of India wanted to complete plans for the production of the entire range of drugs and pharmaceuticals from the primary to the finished stage.

Mr. A. G. Matradze, leader of the Soviet team which arrived in Delhi on August 3, said his team would do its best to help Indian experts in drawing up programmes for the manufacture of drugs still being imported.

Manufacture of Infant Food in Madras

The Madras Government have under consideration a scheme for the manufacture of infant food at Ootacamund at a capital cost of about Rs. 20 lakhs, it is learnt.

According to the present scheme there will be a Co-operative Milk Union producing milk between 10,000 and 20,000 Madras measures for conversion into food for babies. It is expected that the daily production of food would be of the order of 1,500 to 3,000 lbs. Best breed for cattle would also be purchased by the Milk Union in order to maximise the production of milk. Ootacamund has been chosen for the location of the factory in view of its favourable climate.

The pattern of manufacture, the agency for marketing the products and other connected details are being worked out. It is gathered that this is a State Government scheme outside the Second Five-Year Plan.

Two Danish firms have, it is understood, offered to participate in the manufacture of this food and negotiations are at present going on between the representatives of the firms and the Madras Government in this connection.

Anti-Tuberculosis Work in Madras State

A tribute to the work done in Madras State to fight tuberculosis was paid by Dr. K. K. Hegde, Minister for Health, Mysore, addressing the 19th annual general meeting of the Tuberculosis Association of Madras held on July 30 in the premises of the Madras Medical College.

In the course of his address, Dr. Hegde said that fighting major diseases was given an important place in their plans for progress and explained how they tackled the problem of malaria in India with their own efforts and with the assistance and guidance from international agencies. Tuberculosis was the next great killer in the country. Though it existed as early as 2,500 years ago, the discovery of the causative organism was as late as the 19th century. On a very rough estimate, about five lakhs of persons died every year of tuberculosis and 2·5 million were suffering from it at any given time in the country.

The Health panel of the Planning Commission, he pointed out, had estimated that the needs of the country at the start of the First Five-Year Plan were 4,000 T.B. clinics, 500,000 beds, 15,000 doctors, 50,000 nurses and 12,000 home visitors. All this would cost Rs. 450 crores initially and Rs. 60 crores annually. The gap between their needs and their resources could be seen from the fact that they had only 166 T.B. clinics and 7,000 hospital beds at the beginning of their planning. While it was necessary to increase the hospitals, clinics, etc., the emphasis would have to be on prevention rather than cure; on domiciliary services rather than hospital care; and early diagnosis rather than on miracles of surgery. The spreading of the infection had also to be tackled by home-isolation as well as hospital-treatment of the patients. The problem was so great that the need for voluntary organisation in this sphere was the greatest. Fortunately they were not badly off in the spirit of service and the Tuberculosis Associations in India had done yeoman work during the last 19 years, he said.

The experts and administrators engaged in anti-tuberculosis work, Dr. Hegde said, should claim to their credit and good fortune the awakening of the public mind to the importance of the tuberculosis problem and it would be the most important and significant single factor in the success of their fight against the disease. They had to pursue it to educate the people with regard to the causation and prevention of tuberculosis, the need for

its early recognition or diagnosis, and the periodical health check-up and follow-up treatment. So far, they had not done badly in their campaign against the disease, but the problem was so great that they had only touched the fringe of it, he said.

Congratulating the State of Madras and the workers there on their pioneering work and contribution in fighting tuberculosis, Dr. Hegde said that Madras had the world's largest laboratory, for the production of the Tuberculin and B.C.G. vaccine. Another important service for which the Madras State had to be congratulated was the establishment of the Chemotherapy Centre with the aid of the W.H.O., I.C.M.R., and the British Medical Research Council.

Surgical Unit for Children in Calcutta

Mr. Mehr Chand Khanna, Union Minister for Rehabilitation, opened the surgical unit of the Institute of Child Health at 95, Dilkhusa Street, Calcutta on August 2.

Built at a cost of Rs. 175,000, the unit has 16 beds and has up-to-date surgery equipment to treat children. Of Rs. 1,100,000, spent on the construction of the Institute, Rs. 280,000 was contributed by the Union Government. It includes the Union Rehabilitation Department's grant for 20 free beds for children of displaced persons.

The Institute's founder secretary, Dr. K. C. Chandhuri, in his report said that the Institute had five sections: curative services at the indoor and outdoor levels; laboratory services; promotive and preventive services; training facilities for doctors and nurses who must reside in the institution; and research departments for fundamental and applied medical sciences.

Dr. Chandhuri regretted that while the Union Government had substantially helped in building the institution, the State Government had given only Rs. 20,000 for its development.

Mr. Khanna said that he had been very much impressed by the work of the Institute. The State was fortunate in having well guided charitable institutions.

The President of the Institute, Mr. P. B. Chakravarti, Chief Justice, said that the Institute aimed not only to cure children's diseases but to spread the concept of child welfare in the country.

Orissa to Set up Vaccine Institute

The Orissa Government has decided to start a Vaccine and Sera Institute at the new capital, Bhubaneswar. Accordingly it has deputed the Officer-in-Charge of the Provincial Laboratory to Madras to make an on-the-spot study of the working of the Madras Institute and submit a report.

It is expected that the institute will start working from the next financial year.

Indian Council for Child Welfare

As a result of talk between Union Ministry of Home Affairs and the Indian Council for Child Welfare, a meeting of the representatives of the various Union Ministries, Delhi Administration, social and child welfare agencies and other local organisations, was convened by the Union Ministry of Home Affairs in July 1958 in New Delhi. The meeting which was presided over by Smt. Violet Alva, Deputy Home Minister, had before it a Plan of the ICCW drawn up in two phases, temporary and permanent, for the proper institutional care of children in Delhi.

The gathering accepted the basic philosophy, as enunciated by the Indian Council that it was "the direct responsibility of the State to build minimum institutions for the proper enforcement of law and maintain these institutions not only with a proper standard but with the definite objective of bringing exploited and delinquent children back into society as citizens with equal rights and opportunities.

No Ill Effects from Radioactive Fluoride

A Minnesota University scientist who drank five microcuries of radioactive fluoride as an experiment on June 20 announced on August 2 that he had not so far suffered any ill effects.

The University said it was the first test of this type on a human being.

The scientist, Dr. Wallace Armstrong, chief of the University's Department of Physiological Chemistry, said the experiment showed that there is a limit to the amount of radioactive fluoride that can be accumulated in the bones.

The findings applied only to fluoride and had nothing to do with the effect of radiation on tissues, Dr. Armstrong said.

CORRESPONDENCE

The Editor is not responsible for the views expressed by correspondents

Simultaneous Onset of Measles and Smallpox

SIR,—S.C., a girl aged 7 years, revaccinated 4 months ago, developed high fever on 27-3-58 with congestion of eyes, running from the nose and upper respiratory tract catarrh.

On 30-3-58 small pin-head size red rashes (as described by her parents) started appearing on the forehead and rapidly spread over the whole body. It was accompanied with intense burning and itching of the body.

The fever reached its acme on 1-4-58 and the patient developed severe cough and moderate amount of respiratory distress on 3-4-58.

Desquamation of the rashes had by then started, leaving blackish pigmented areas. The patient was diagnosed to have been suffering from measles with acute bronchopneumonia. A course of penicillin and streptomycin in combination, produced a prompt remission of fever on 4-4-58.

In the evening on 3-4-58, a reddish papule 3 mm. in diameter, was found on the extensor surface of the distal third of the left forearm. A similar eruption was found on the posterolateral part of the right leg, on the ears, forehead, dorsum of the hands and on the left palm on 4-4-58. Total number of eruptions was only 23.

The original rash on the left forearm changed into vesicles on 5-4-58 and this stage was completed in all others by 7-4-58.

Most of the vesicles had red areolae around them and only two had umbilication including the one noticed first on the left forearm which attained the largest size. Some amount of pleomorphism was noticed in the efflorescence, as crops came up in successive occasions and arrest of maturation occurred in many. Formation of pustules started from 8-4-58. Desiccation started from 10-4-58 and was complete by the next 9 days.

There is ample scope to diagnose this case, in retrospect, as one of smallpox only designating the earlier reaction as due to prodromal rash of smallpox.

These rashes which may be erythematous, would have been misleading. But they appear mostly on the femoral triangle, trunk and on the limbs. They are usually fugitive. Desquamation of this erythematous rash is never found.

Prodromata of smallpox may also take the form of petechiae. These are however very characteristic and cannot be confused with measles.

Incidence of measles in the neighbours and subsequent development of the disease in one of the younger brothers of the girl, during the later part of her own illness (on 16-4-58) are indirect pointers.

The characteristic geographical distribution of the later eruption betrayed the presence of smallpox, although, scantiness, lack of development and pleomorphism suggested a modified attack.

Can this case be one of measles with modified smallpox. We are, etc.

Central Hospital, N. E. Ry., Gorakhpur.

I. B. CHOUDHURY, *C.M.O.*
S. BOSE, *Asst. Surgeon.*

I.M.A. and L.I.C.

SIR,—I have read with interest the memorandum of Life Insurance Corporation and Medical Examiners submitted by the Association to the L.I.C. of India.

While fully endorsing the contents of the memorandum, I am constrained to take exception to the words in all humility appearing in the text in lines 30-40 on page 41 of July 1, 1958 issue of the Journal. The use of such epithets is not only derogatory to the dignity of the profession but is also repugnant to the democratic instinct. Besides, what the Association has asked is not *meharbani* but the acceptance of legitimate demands in public interest.

I am further of the opinion that the efforts of the Association in this matter and in general in casual, lukewarm and timid. The profession is faced with many vital problems, and it is time the High Commands at the central and state levels showed greater zeal and earnestness in solving them. An overwhelming majority of members would agree with me that the Association has, so far, failed to deliver the goods notwithstanding its progressive membership, increasing finances, perennial conferences, cumulative resolutions and a full-fledged secretariat. I am etc.

New Delhi (DR.) C. L. BHOLA.

REVIEWS

How to Use a Medical Library; a Guide for Practitioners, Research Workers and Students—By Leslie T. Morton, A.L.A. Third edition, 1957, board bound with jacket, 7½″×5″, 55 pages. William Heinemann Medical Books Ltd. Price 7*s.* 6*d.* net.

This is a small but valuable book which will help and guide research workers and practitioners, specially in the United Kingdom, about the best and most rewarding way to utilise the facilities offered by medical libraries. The various chapters deal with arrangement within the library, chief sources of information, practical use of bibliographical sources, the location of medical literature, compilation of medical bibliographies, periodicals, abstracting services, principal medical libraries in Britain, and a list of references. A quite useful book.

Metabolism of the Nervous System—Edited by Derek Richter. Published 1957 by Pergamon Press Ltd., 4 & 5, Fitzroy Square, London W. 1. Board bound with paper jacket, 9¼″×6¼″, 599 pages; price £5.

This volume contains the proceedings of the Second International Neurochemical Symposium held at Aarhus, Denmark, with over one hundred participants. The deliberations have been presented in thirteen well-arranged sections. The book represents the results of collective effort by a group of investigators working in different fields of research in scattered areas of the world, but all having a common interest in the nervous system in health and disease. The discussions cover the important new advances made in this field and they range from electron microscopy to problems of nervous transmission and drug action. This book is a mine of information and represents the pooled wisdom of many workers.

Biological Aspects of Cancer—By Julian Huxley, F.R.S. First published 1958 by George Allen & Unwin Ltd., Ruskin House, Museum Street, London. Board bound with paper jacket, 8¼″×5½″, 156 pages; price 16*s.* net.

Dr. Julian Huxley was invited in 1955 by the Sloan-Kettering Foundation for Cancer Research in New York to deliver the first Alfred P. Sloan lecture there. To his first reaction of non-acceptance, argument was put forward that a fresh and outside view was just what the Institute wanted, from such a person, who had pleaded lack of any detailed knowledge of the subject. Dr. Huxley accordingly set himself to the task of reviewing the mass of scattered facts concerning the biological aspects of cancer. These include the comparative study of the incidence of neoplasia in different groups of animals and plants; the cytogenetics of cancer-proneness; the evolutionary implications of malignancy; the relations of viruses to neoplastic disease; and the developmental physiology of cancer. A vast amount of material has been studied and reviewed in this compact and comparatively small handy book. The reader will be fascinated with the presentation and will agree with Dr. Huxley when he writes that the preparaton has "involved me in more hard labour than anything I have attempted since I took my Final Honours

examination in Zoology at Oxford." The reader will also agree with the author that cancer should not be considered as a field of purely medical concern, but is rather to be regarded as a key subject for general biology. The study of cancer involves questions of genetics, infection, epigenetics, biochemistry, immunology, endocrinology, virology, pathology, clinical medicine, public health and human ecology. Cancer research will certainly profit from utilising biological methods and ideas. In this book, the renowned author very ably reviews the multitude of facts concerning cancer in the light of modern biological advances. With an excellent epilogue and a bibliography of 500 titles, this book will certainly prove to be of great help to all workers in cancer research.

Medicine : Essentials for Practitioners and Students—By G. E. Beaumont, M.A., D.M. (OXON.), F.R.C.P., D.P.H. (LOND.), Seventh edition, 1958, published by J. & A. Churchill Ltd., 104 Gloucester Place, London, W. 1. Board bound with paper jacket, 9½"×6¼", 847 pages with 70 illustrations; price 45s. net.

First published in 1932, this seventh edition has passed through a thorough revision; including new articles on a number of subjects, re-writing and re-casting several others, adding new notes on several other subjects, and describing the therapeutic use of over thirty new preparations. The volume maintains its easy readability, practical suggestions, useful details wherever possible; and, on the whole, has continued, and perhaps improved upon, the usefulness and acceptability of the book to students and practitioners alike.

Introduction to Dental Anatomy—By James Henderson Scott, D.SC., M.D., L.D.S. and Norman Barrington Bray Symons, M.SC., B.D.S. Second edition, 1958; published by E. & S. Livingstone Ltd., Edinburgh and London. Board bound with paper jacket, 8¼"×5¼", 344 pages, 219 illustrations, price 42s. net.

Liberally illustrated with figures made mostly from authors' own materials, the book gives the reader a good idea and a lasting visual impression about the subject of dental anatomy. This book is expected to prove useful to students and practitioners of dental surgery.

Frazer's Anatomy of the Human Skeleton—Fifth edition, 1958, edited by A. S. Breathnach, M.D., M.SC. Board bound with paper jacket, 11½"×8¼", 247 pages with 197 illustrations, many in colour. J. & A. Churchill Ltd., 104 Gloucester Place, London W. 1; price 50s. net.

In the first edition, published in 1914, the author wrote that his intention was to induce the student to think of the bones as they exist in the body rather than as they lie on the table before him; and to achieve this objective, the author laid stress on the meaning of small details and on the relations of the bone, relegating the pure description of the dry bone to a secondary place. The original author of the book hoped that this treatment of the subject would be of value to the student and might lead him to think of the skeleton as something more than a dry subject for study, and would stimulate him to search for the reasons of the many abstract and concrete qualities he would himself observe later. The aforementioned objective has been maintained and amplified in this present edition. New material has been added and all chapters have been well revised to bring this edition of the book up to date and thus continue the effective usefulness of the book.

Polymyositis—By John N. Walton, M.D., M.R.C.P. and Raymond D. Adams, M.D. Published January 1958 by E. & S. Livingstone Ltd., Edinburgh and London. Board bound with paper jacket, 8¼"×5¼", 270 pages with 47 illustrations; price 32s. 6d. net.

In recent years, quite a large number of diseases affecting the muscles and nerves in a variety of ways, have been described and introduced in the medical literature. Their identification has been achieved by laborious clinical study, assisted by the more frequent use of special laboratory procedures such as muscle biopsy and electromyography. The material forming the basis of this communication was mainly obtained through the work begun during the tenure of one of the authors of two Fellowships facilitating the collection of forty cases, collected from two large general hospitals in the north-eastern United States and north-east England. Pathologically, all cases in which muscle sections were obtained at biopsy or autopsy revealed a degenerative and often an inflammatory process of a type and degree which, in combination with the clinical picture, set them apart from progressive muscular dystrophy. The text of the book begins with a synopsis and critical review of published reports concerning each of the muscle disorders under consideration; followed thereafter by a detailed analysis of the clinical and pathological findings in their own cases which are reported individually in the Appendix. Finally, the authors have attempted to make certain deductions concerning the nature of the morbid process or processes involved and draw certain conclusions as to their inter-relationship. A reading of the book reveals the amount of careful and laborious studies undertaken and serves to stimulate thinking about the interesting but somewhat confusing variety of diseases affecting muscle tissues. A careful perusal will be rewarding to all concerning themselves with these and related problems.

A Brief History of Nursing in India and Pakistan—By A. Wilkinson, S.R.N., S.C.M. Published 1958 by the Trained Nurses Association of India, 28 Alipur Road, Delhi 8. Paper bound, 8½"×5½", 115 pages; stocked by S.P.C.K., Post Box 1585, Kashmere Gate, Delhi 6; Price Rs. 2·50 (by post Rs. 3·00).

This book narrating the history of nursing in the subcontinent of India and Pakistan, is written by one who is well-qualified for the job. The author has been the Nursing Superintendent, St. Stephen's Hospital in Delhi from 1908-38, and was the President of the Trained Nurses' Association of India from 1940 to 1947. The pages of the book make interesting reading, and depict the growth, development and various aspects of nursing in this subcontinent. This book should be read by all who are interested in this very important limb of health services.

SUPPLEMENT
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ASSOCIATION NOTES

I.M.A. WORKING COMMITTEE—*Proceedings of the 63rd meeting of the Working Committee of the Indian Medical Association held at Jackson's Hotel, Jabalpur, on the 12th and 13th April, 1958.*

(Subject to confirmation at the next meeting of the Working Committee)

MEMBERS PRESENT—(a) *Ex-Officio members* : 1. Dr. D. V. Venkappa (Madras), President (in the chair); 2. Dr. C. S. Thakar (Bombay), Immediate Past President; 3. Dr. S. P. Nath (Silchar), Senior Vice-President; 4. Dr. G. S. Melkote (Hyderabad), Vice-President; 5. Dr. R. C. Goulatia (New Delhi), Hony. Treasurer; 6. Dr. A. P. Mittra (New Delhi), Hony. General Secretary; 7. Dr. Ved Prakash (New Delhi), Hony. Joint Secretary; 8. Dr. H. S. Chakravarti (Calcutta), Hony. Asst. Editor, Journal, I.M.A. and 9. Dr. R. Sinha (Calcutta), Hony. Secretary, Journal, I.M.A.

(b) *Representatives from State/Territorial Branches* : 10. Dr. P. S. Giri, Andhra State Branch; 11. Dr. B. P. Trivedi, 12. Dr. Debesh Mukherjee, 13. Dr. Gopikrishna Chakraborty and 14. Dr. Salil Dutt, Bengal State Branch; 15. Dr. R. V. Sathe, Bombay Territorial Branch; 16. Dr. H. C. Mallick and 17. Dr. N. P. Tripathi, Bihar State Branch; 18. Dr. B. B. Bhatia, Delhi State Branch; 19. Dr. P. R. Triveri, Gujarat & Saurashtra Territorial Branch; 20. Dr. M. M. Dalal, Kutch Territorial Branch; 21. Dr. R. N. Chatterjee, Madhya Pradesh State Branch; 22. Dr. Y. P. Vasudevan, Madras State Branch; 23. Dr. B. K. Modak and 24. Dr. C. N. Chandrachud, Maharashtra & Karnatak Territorial Branch; 25. Dr. C. O. Karunakaran, Kerala State Branch; 26. Dr. M. M. S. Siddhu and 27. Dr. H. N. Shivapuri, U. P. State Branch.

(c) *Co-opted members* : 28. Dr. D. S. Mehra (Delhi), 29. Dr. K. V. Swamy (Madras); 30. Dr. G. K. Kulkarni (Nagpur) and 31. Dr. R. A. Bhagwat (Indore).

(d) *Invited members* : 32. Dr. R. N. Choudhary—President, Madhya Pradesh State Branch, I.M.A.; 33. Dr. R. P. Dube—President, Jabalpur Branch, I.M.A. and 34. Dr. T. A. Dorai Royan (Mysore).

Dr. Ved Prakash, the Hony. Joint Secretary, informed the house that of all members of the Association present at the meeting as accredited members of the Working Committee, the question of representatives of Kutch and Mysore needed consideration. He also informed the house that because of reorganisation of some of the State/Territorial Branches of the I.M.A. on 1st April, 1958, the question of accredition of representatives of the affected State/Territorial Branches needed consideration before taking up the regular agenda.

Dr. M. M. Dalal, the representative from Kutch Territorial Branch who was present at the meeting was allowed to participate as a regular member of the Working Committee, in view of the fact that though Kutch had merged with Gujarat & Saurashtra Territorial Branch on 1st April, 1958, no fresh elections of the re-organised Territorial Branch had yet taken place. It was also decided that this decision of the Working Committee was applicable to the current meeting only.

The Hony. Joint Secretary further informed the house that the President of the Mysore State Branch had in his letter No. 228/57-58 dated 7th April, 1958, received at the Central Office on 10th April, 1958, informed the Hony. General Secretary that Dr. T. Dorai Royan would be representing the Mysore State Branch, obviously the regular and the alternate members being unable to attend. The Working Committee decided that the Rules of the Association did not allow any other representative to be entitled to attend in place of the regular and alternate members. The Working Committee also decided that no T.A. could be paid to Dr. T. Dorai Royan. The President invited Dr. T. Dorai Royan to attend the meeting, but without right of vote.

Resolution of Condolence :

The following Condolence Resolution was unanimously passed, all members standing and observing silence for one minute :

"This meeting of the Working Committee of the Indian Medical Association places on record its deep sense of sorrow at the sad demise of the following members of the Association and conveys its heartfelt sympathy to the members of the bereaved families :

(1) Dr. V. K. Mehendale (Sholapur), (2) Dr. A. K. Bhattacharya (Moradabad), (3) Dr. D. G. Tendulkar (Bombay), 4. Dr. N. L. Ranade (Poona), (5) Dr. S. G. Kurlekar (Sangli), (6) Dr. H. J. Masilamani (Madura), (7) Dr. L. A. Ravi Verma (Trivandrum), (8) Dr. Nand Lal Mathur (Bhilmara Branch), (9) Dr. Bhawani Shankar Bhatnagar (Jaipur), (10) Dr. Hargovind Sahai (Hardoi), (11) Dr. V. R. Mahajan (Maroli), (12) Dr. J. C. Chakravarty (Calcutta), (13) Dr. B. V. Sharma (Mathura), (14) Dr. M. T. Ram (Lucknow), (15) Dr. B. Hirji (Allahabad), (16) Dr. Hargovind Sahai (Lucknow), (17) Dr. L. S. Timodi (Banaras), (18) Dr. L. V. Paranjpe (Nagpur), (19) Dr. B. M. Sharma (New Delhi) and (20) Dr. (Mrs.) Mathew (Hyderabad).

Messages of inability to attend the meeting :

Messages of inability to attend the meeting received from the following members were read :

1. Dr. P. K. Guha (Calcutta), Editor, Journal, I.M.A.; 2. Dr. P. C. Bhatia (Delhi), Hony. Joint Secretary, I.M.A.; 3. Dr. D. G. Ojha (Jodhpur); 4. Dr. Sukomal Sen (Calcutta); 5. Dr. J. C. Banerjea (Calcutta) and 6. Dr. B. L. Kapur (Ludhiana).

I. *Confirmation of the Proceedings of the 62nd meeting of the Working Committee held at Bangalore on the 22nd and 23rd December, 1957.*

The following corrections and additions were made in the Minutes of the 62nd meeting, as circulated :

Page 2, Item II (1) : The names of the members of Sub-Committee on D.T.M. Course to be added as follows :

1. Dr. S. K. Dutt (Calcutta)—Convener;
2. Dr. A. C. Ukil (Calcutta);
3. Dr. A. K. Bose (Calcutta);
4. Dr. J. Mojumdar (Calcutta) and
5. Dr. N. K. Munshi (Calcutta).

Page 2, Item II (1), Line 17
Instead of "Committees", substitute "Councils".
Page 2, Item II (5) (f)
Read "A.T.S." instead of "N.T.S.".
Page 2, Column 2, para 3, 17th line
Read "Rapprochment" instead of "Approachment".
Page 3, Item (12), last line
Read "in the defence of the suit" instead of "into the defence of the suit".
Page 3, Item III "Suspension of Branches"
Delete Deoria Branch (U.P.); it was not suspended.
Page 4, Item VI (B)
Read "The Working Committee sanctioned the budget provisions for the appointment of the following additional staff" instead of "The Working Committee sanctioned the appointment of the following staff".
Page 5, Item VIII
Read "Fyzabad" instead of "Faizabad".
Page 6, Item XIII
Add the initials of Dr. Saxena of Hubli to read as "J. S. Saxena".
Page 6, Item XIX
Add at the end "with a copy of the remarks of the Lucknow Branch".

The proceedings of the meeting as corrected above were then confirmed as proposed by Dr. H. N. Shivapuri (Lucknow) and seconded by Dr. N. P. Tripathi (Bihar).

II. *Business arising out of the Proceedings of the last meeting of the Working Committee.*

(1) *D.T.M. Course at the School of Tropical Medicine, Calcutta* :

The Report of the Sub-Committee was read and approved by the House. The Sub-Committee was requested to continue its efforts in having a diploma awarded to the licentiates by the School of Tropical Medicine on its own, if the University does not grant one because of its statutory difficulties.

(2) *The Indian Medical Council Act* :

The Working Committee directed the Central Office to find out if the Indian Medical Council Act as amended in 1956 had come into force or not. The President in giving a resume of this Act informed the house that he would interview the Prime Minister and the Union Health Minister re. the defects of this Act in creating casteism and compartments in the profession. The house unanimously accepted the proposal.

(3) *I.M.A. Benevolent Scheme* :

Dr. Ved Prakash, Hony. Joint Secretary, reported no progress in the matter because of the Chartered Accountants not being in a position to give any advice in the absence of any model scheme already in operation in other countries. The Central Office had asked for copies of schemes from foreign medical Associations for the use of the Chartered Accountants.

(4) *Disposal of funds of the (dissolved) South Indian Branch of the B.M.A.* :

The Hony. General Secretary reported that after all the branches of the I.M.A. concerned in the transfer of the funds of the defunct South Indian Branch of the B.M.A. had agreed to this transfer to the I.M.A. Building Fund, the Council of the defunct branch objected to it. The President who had already spoken to Dr. A. Lakshmanaswami Mudaliar, Chairman of the Council, undertook to speak to him again in an attempt to have these funds transferred to I.M.A. Building Fund. Dr. C. O. Karunakaran (Trivandrum) pointed out the difficulty of allocating this money to a building Fund of the Madras State Branch as other State Branches such as Kerala, Andhra and Mysore were also successors of the B.M.A. fund.

(5) *Employees' State Insurance Corporation* :

The general discussion on E.S.I. elicited information from various State representatives on matters, such as sickness benefit during casual leave, safeguarding interests of service doctors in E.S.I., disentitlement of medical benefits etc. etc. A good deal of discussion took place on question of Capitation Fee for family units. The Hony. General Secretary and Dr. C. S. Thakar (Bombay) narrated the events and the stage of discussion this matter had now reached, *vis-avis* the I.M.A. and the E.S.I. Corporation. The following resolution moved by Dr. G. K. Kulkarni (Nagpur) and seconded by Dr. R. C. Goulatia (New Delhi) was unanimously adopted :

"Resolved that in the light of the discussion on the Capitation Fee for the Panel practitioners in the E.S.I. Scheme when it is extended to the families of the workers, the E.S.I. Standing Committee of the I.M.A. is empowered to negotiate and conclude an agreement with the E.S.I. Corporation in the best interests of the I.M.A. and the profession in general".

The Working Committee decided to refer to the Standing Committee on E.S.I. the letter received from the Sholapur Branch.

(6) *Life Insurance Corporation* :

The draft memorandum of the Sub-Committee already circulated was taken up for consideration. Except for a few typographical errors pointed out by Dr. C. O. Karunakaran and Dr. H. N. Shivapuri, the recommendation therein submitted was approved by the Working Committee.

(7) *I.M.A. Building Standing Committee* :

Dr. R. C. Goulatia (New Delhi) informed the house that Rs. 82,957/81nP had so far been actually collected towards the building fund. Promises to the extent of Rs. 10,000/- had been made. He informed the house about the plans of the building and the discussions which the Standing Committee had had with the Architect. He also informed the house of a munificent contribution of Rs. 10,000/- made by M/s. Alembic Chemical Works of Baroda through the efforts of Dr. C. S. Thakar, the Immediate Past President.

(8) *Letter dated 1-2-58 of Dr. D. G. Ojha of Jodhpur, re. presentation of certain trophies to the I.M.A.* :

No meeting of the Sub-Committee could be held. There was nothing to report.

(9) *Institution of a suit by the landlord for ejectment on grounds of personal needs and inadequate rent* :

The Hony. General Secretary informed the Working Committee the stage of the suit pending in the Court for eviction of the Central Office of the I.M.A. in the case which the landlord had instituted. The Working Committee authorised the Hony. General Secretary to contest the case in the best interests of the Association.

(10) *Letter No. GS/51/57 dated 28-11-57 of the Hony. Secretary, Tittagarh Branch with a copy of Resolution re. award given by the Industrial Tribunal, W. Bengal* :

Dr. H. N. Shivapuri (Lucknow) suggested that in view of medical relief being a transferred subject, the State branches should take up the question of certificates and countersignatures at State levels. The Central Office would however obtain legal opinion on the award of the Industrial Tribunal in question.

(11) *Resolution of Fyzabad Branch re. Central Medical Services Cadre and to absorb Railway Medical Service also in the medical service* :

Its consideration was postponed until all the facts were known.

(12) *Letter dated 27-11-58 of the Hony. Secretary, Uluberia Branch, West Bengal, containing a resolution re. formation of a Defence Council for members of the I.M.A.* :

The Central Office had obtained some information from some foreign Associations. More information was awaited. The matter was postponed.

(13) *Resolution as proposed by Dr. R. C. Goulatia and seconded by Dr. P. C. Bhatia re. decision of the Delhi Administration of declaring houses occupied by doctors in residential areas and used as clinics as commercial places being ill-conceived and detrimental to the interests of the public and medical practitioners etc.* :

The Working Committee authorised the Honorary General Secretary to select a deputation locally in Delhi on behalf of the I.M.A. and meet the authorities concerned.

(14) *Resolution from Hassan Branch (Mysore) re. restrictions imposed on Licentiates for issuing of physical fitness certificate to candidates seeking admission to technical and other university courses* :

The matter was noted.

(15) *Letter No. 38/57-58 dated 18-10-57 from the Honorary Secretary, Madras State Branch regarding resolution on foreign exchange for post-graduate studies in foreign countries* :

The Working Committee was apprised of the reply of the Ministry of Finance and as it was satisfactory no further action was contemplated.

(16) *Letter No. E/312/57-58 dated 29-11-57 from the Honorary Secretary, Journal of the I.M.A. re. revised Provident Fund Rules for the Central Office Delhi and Journal Office at Calcutta* :

The Provident Fund rules for the staff employed at the Journal Office which were circulated were adopted by 16 votes for and 6 against on a resolution as under, moved by Dr. H. N. Shivapuri and seconded by Dr. M. M. S. Siddhu.

"Whereas the Provident Fund Rules have been considered by the previous meeting of the Working Committee and the principle of having two separate trusts one at Delhi for the Central Office and the other at Calcutta for the Journal Office staff has been accepted, be it resolved that the Provident Fund Rules for the Journal staff as circulated be adopted".

During discussion it transpired that the Journal Department had advanced loans to the staff to the amount of about Rs. 4,000-00nP. No interest was being charged for these loans. These loans become necessary because the Provident Fund Account could not be operated for various reasons. The Honorary Secretary of the Journal Department assured the House that once the new Provident Fund rules came into force, these loans would be liquidated.

(17) *Letter No. E. 7/21 dated 12-10-57 from the President, Bombay Branch, I.M.A. enclosing a copy of letter from Dr. S. V. Joglekar, Bombay, re. enrolment of new members* :

Replies received from various branches were placed before the house. During discussion it was pointed out that recent change in Rule No. 12 made it incumbent upon applicants for admission as members to be registered under the Indian Medical Council Act as amended in 1956. As the recently qualified doctors could not produce evidence of registration for periods as long as 3-6 months after obtaining the qualification because the process of registration sometimes took that much of time, the Working Committee decided to allow fresh graduates to become provisional members till the time they produced evidence of Registration when they would be admitted as full members. C.F.C. on behalf of these members would be paid to the Centre from the date of their first enrolment.

Regarding formation of another branch in Bombay, the Working Committee decided to disallow it.

(18) *Letter No. 674/88/53/56-57 dated 10-4-57 from the Hony. Secretary, U.P. State Branch, I.M.A., Lucknow, re. the Health Insurance Scheme in the City of Lucknow* :

In view of insufficient response and expression of opinion by the State Branches on the Medical Insurance Scheme prepared by Lucknow Branch, the matter was postponed.

(19) *Recommendations of the I.M.A. on Pay, Status and Service conditions of doctors in Government services* :

The House was informed that the questionnaire sent out by the Central Pay Commission was such that the Association could not reply to it because it entailed necessity of such information, on socio-economic conditions which were not available with the Association. The Pay Commission had sent a few sets of the questionnaire which were forwarded to some members of the Working Committee and a few State Branches, but not a single reply had been received at the Central Office. Drs. C. O. Karunakaran and B. P. Tribedi desired that the State Branches should be given some latitude towards accepting scales of pay which were less than those recommended by the Centre in its Memorandum to the Pay Commission. The Working Committee did not agree to this suggestion in view of its previous decision arrived at in its meeting held at Bangalore and duly approved by the Central Council subsequently.

(20) *Letter dated 6-12-57 from Dr. B. B. Bhatia to explore the possibilities of the "Assistantships, Partnerships and Group Practices" in India* :

In view of the Central Office not having been able to collect sufficient information from abroad, the matter was postponed.

III. (a) *Formation of New Local Branches.* (b) *Revival of branches.* (c) *Suspension of Branches.* (d) *Branches declared defunct.* (e) *Formation of a new Branch at Dhakuria.*

(a) *Formation of new Local Branches* :

The formation of the following new local branches was approved :

Name of the branch formed	State/Territorial Branch	No. of members	Date of formation
1. Gumla ...	Bihar	14	1-10-1957
2. Paliganj ...	Bihar	5	1- 4-1958
3. North East Cachar	Assam	6	1-10-1957
4. Gadarwada ...	Madhya Pradesh	5	1-10-1957
5. Damoh ...	—do—	12	1-10-1957
6. Durg ...	—do—	12	1-10-1957
7. Katni ...	—do—	15	1-10-1957
8. Mandla ...	—do—	6	1- 4-1958
9. Bail-Hangol ...	Mysore	6	1-10-1957
10. Bhadrak (Dist. Balasore) ...	Orissa	6	1-10-1957
11. Gudivada ...	Andhra	25	1- 4-1958
12. Puri ...	Orissa	20	1- 4-1958

(b) *Revival of Branches* :

The Working Committee approved the revival of the following branches :

Name of the branch revived	State/Territorial Branch	No. of members	With effect from
1. Qadian ...	Punjab	5	1-10-1957
2. Raigarh ...	M. P.	16	1-10-1957
3. Sangareddy ...	Andhra	12	1-10-1957
4. Deoband ...	U. P.	6	1-10-1957
5. Rae Bareli ...	—do—	9	1-10-1957
6. Saharanpur ...	—do—	25	1-10-1957

(c) *Suspension of Branches* :

The Working Committee declared the following branches suspended as recommended by the respective State/Territorial Branches :

1. Bundi ...	Rajputana	with effect from 1-4-1958
2. Kurseong ...	Bengal	—do—
3. Chanditala ...	—do—	—do—
4. Serampore ...	—do—	—do—
5. Sitarampore ...	—do—	—do—
6. Singur-Haripal	—do—	—do—

(d) *Branches declared defunct* :

Nil.

(e) *Formation of a new branch of the I.M.A. at Dhakuria in the area of Bengal State Branch and objection to it of Tollyganj Branch (Bengal)* :

Dr. B. P. Tribedi (Bengal) apprised the house of the investigations he had undertaken and the visits he had paid to Tollyganj and Dhakuria areas of Calcutta Corporation and the knowledge gained thereby that the formation of a branch at Dhakuria did not in any way affect the already existing Tollyganj Branch in as much as all the doctors who had joined the Dhakuria branch were never members of the Tollyganj Branch and that most of them were refugee doctors who had settled there after partition and had now formed a branch.

Dr. S. P. Nath, the Vice-President, who was presiding at this stage appealed to the house to consider the matter dispassionately keeping in view the rules of the Association. After a good deal of discussion, Dr. C. O. Karunakaran (Trivandrum) seconded by Dr. K. V. Swamy (Madras) moved the following resolution :

"In view of the fact that the West Bengal State Working Committee after careful reconsideration of the question of the Dhakuria Branch, has almost unanimously recommended its recognition and also in view of the explanation given by Dr. Tribedi, President of the Bengal State Branch, and in particular in view of the peculiar situation arising from the influx of a large number of refugee doctors, it is resolved that the Dhakuria Branch be recognised.

Resolved further to inform the State Branches not to recommend the recognition of new branches when there is likelihood of objection by the neighbouring branches so that the impartial consideration of recognition by the Working Committee may not be prejudiced in any manner".

which was carried by 16 votes for and 10 against.

Dr. R. C. Goulatia (New Delhi) wished it to be recorded that the permission to form a branch at Dhakuria was against the rules of the Association.

IV. *Consideration of C.F.C. arrears, if any.*

Dr. R. C. Goulatia, the Hony. Treasurer, read out the statement of C.F.C. arrears for the past years and also explained the position of current year's C.F.C. This subject was discussed at length in the meeting and the representatives of all State/Territorial Branches present were requested to exert their influence to get the arrears realised and remit the same to the Central Office.

V. *Adoption of Audited Accounts.*

(a) *Central Office—From 1-10-57 to 31-12-57.*

Dr. R. C. Goulatia, the Hony. Treasurer, presented the audited accounts of the Central Office from 1-10-57 to 31-12-57 (already circulated with the Agenda papers).

After replying by the Hony. Treasurer to some questions raised by Dr. H. N. Shivapuri (Lucknow) with regard to certain items, the accounts of the Central Office for the quarter ending December 31, 1957 were adopted as proposed by Dr. K. V. Swamy (Madras) and seconded by Dr. Salil Dutt (Bengal).

(b) *Journal Office—From 1-10-57 to 31-12-57.*

During discussion on accounts of the Journal Office presented by Dr. R. Sinha, Hony. Secretary of the Journal, it transpired that an item on expenditure in connection with Air fare for the return journey of the Editor of the Journal from Bangalore to Calcutta for some urgent reasons, might need the approval of the Working Committee. The Working Committee approved of this special expenditure.

The accounts of the Journal Office as presented for the quarter ending 31st December, 1957 were adopted as proposed by Dr. N. P. Tripathi (Bihar) and seconded by Dr. P. S. Giri (Andhra).

VI. *Consideration of letter dated 12-12-75 of the Hony. Secretary, Calcutta Branch, I.M.A. containing two resolutions* :

1. (a) Re. unequal distribution of medical men in different States resulting in serious unemployment in certain States and acute dearth of them in other States.
   (b) Post-graduate medical degrees and diplomas of Indian Universities, not considered at par with foreign degrees and diplomas in appointing senior officers in Government service and public organisations.
2. Re. Employees' State Insurance Scheme and difficulties of medical practitioners in realisation of their due fees.

The two resolutions included in this letter were referred to the appropriate Standing Committees of the I.M.A. for their consideration and necessary action.

VII. *Consideration of letter No. 232/57-58 dated 19-12-57 of the Hony. Secretary, Madras State Branch, I.M.A. containing a resolution re. retention of English as medium of instruction in High Schools and Colleges.*

Postponed.

VIII. *Selection of two Delegates, 2 Alternate Delegates and 2 Observers as representatives of the I.M.A. to 12th General Assembly of the World Medical Association to be held in Copenhagen, Denmark, from August 15 to 20, 1958.*

Before the selection of I.M.A. delegates to various Conferences and Conventions of other bodies, Dr. H. N. Shivapuri (U.P.) seconded by Dr. M. M. S. Siddhu (U.P.) moved the following resolution which was passed unanimously :

"Resolved that only those members of the Association who took an active interest in the affairs of the I.M.A. and were fully conversant with the policies and working of the I.M.A. shall be nominated as Delegates of the I.M.A. to other Organisations".

The House nominated Dr. S. C. Sen (New Delhi) and Dr. A. P. Mittra (New Delhi) as Delegates to the 12th General Assembly of the World Medical Association to be held in Copenhagen, Denmark, from 15th to 20th August, 1958.

Dr. C. S. Thakar (Bombay) and Dr. S. M. Ghosal (Patna) were nominated as Alternate Delegates.

Dr. S. C. Sen (New Delhi) was to be the leader of the delegation.

IX. *Selection of a Delegate of the I.M.A. to attend the 126th Annual Meeting of the B.M.A. to be held in Birmingham from July 14th to 18th, 1958 in response to letter dated 30-12-57 of the British Medical Association inviting the I.M.A. to appoint a Delegate for the purpose.*

Dr. C. S. Thakar (Bombay) was unanimously elected as the I.M.A. Delegate to the 126th Annual Meeting of the British Medical Association to be held from 14th to 18th July, 1958 in Birmingham.

X. *Selection of two representatives of the I.M.A. on the Medical Benefit Council of the Employees' State Insurance Corporation—Letter No. PHI-1349/57 dated 4-1-57 from the Under Secretary to the Government of India, Ministry of Labour and Employment, New Delhi, on the subject.*

Dr. H. N. Shivapuri (Lucknow) and Dr. (Mrs.) Maitreyee Bose (Calcutta) were unanimously elected as the representatives of the I.M.A. on the Medical Benefit Council of the Employees' State Insurance Corporation as proposed by Dr. Salil Dutt (Bengal) and seconded by Dr. A. P. Mittra (New Delhi).

XI. *Selection of representative of the I.M.A. to the Indian Nursing Council—Letter No. 1.1/58 Inc. dated 31-1-58 from the Secretary, Indian Nursing Council.*

The following three names were duly proposed :

1. Dr. Y. P. Vasudevan (Coimbatore)
   —Proposed by Dr. Salil Dutt (Bengal)
   —Seconded by Dr. M. M. S. Siddhu (U.P.
2. Dr. Chamanlal M. Mehta (Bombay)
   —Proposed by Dr. B. K. Modak (M. & K.)
   —Seconded by Dr. P. R. Trivedi (G. & K.)
3. Dr. P. N. Sinha (Patna)
   —Proposed by Dr. H. C. Mallick (Bihar)
   —Seconded by Dr. M. M. Dalal (Kutch).

On a vote being taken, Dr. Y. P. Vasudevan (Coimbatore) received 14 votes, Dr. Chamanlal M. Mehta—7 and Dr. P. N. Sinha 4.

Dr. Y. P. Vasudevan (Coimbatore) having secured the maximum number of votes, was therefore duly elected representative of the I.M.A. on the Indian Nursing Council.

XII. *Selection of a representative of the I.M.A. to participate in the Second World Conference on Medical Education sponsored by the World Medical Association to be held in Chicago, U.S.A. August 30th to September 4th, 1959.*

The following panel of members was nominated to represent the I.M.A. on the above Conference to be held in Chicago from August 30th to September 4th, 1959 :

1. Dr. S. C. Sen (New Delhi)
2. Dr. S. S. Misra (Lucknow)
3. Dr. C. L. Jhaveri (Bombay)
4. Dr. R. V. Sathe (Bombay)
5. Dr. R. K. Menda (Bombay)
6. Dr. P. N. Sinha (Patna)
7. Dr. S. M. Ghosal (Patna).

XIII. *Consideration of letter No. 401/57-58 dated 12-3-58 of the Hony. Secretary, Madras State Branch, suggesting enrolment of new medical Graduates as members of the I.M.A. at a concessional rate of annual subscription.*

During discussion on the subject matter of the above quoted letter, it transpired that the Indian Medical Council Act 1936 as amended in 1956 had not yet come into force and as such, the Rule No. 12 of the Association regarding "Eligibility of Membership" which was also recently amended, clearly laid down that medical graduates as registered under the Indian Medical Council Act as amended in 1956, would be eligible for membership. The Medical Council Act not having come into force, the amended Rule of the Association could not be applicable.

There was divergence of opinion on this point and the Central Office was asked to find out whether the Indian Medical Council Act as amended in 1956 had come into force or not.

Regarding the question of reduced rates of annual subscription, the Working Committee opined that the annual subscription was levied by the branches and its amount was also fixed by each branch and varied from branch to branch. The Central Fund Contribution on behalf of every branch member was Rs. 8/- and this could not be reduced even in the case of new medical graduates.

XIV. *The 3rd Drugs Conference to discuss Drugs Act 1940 and Drugs Rules, 1945 to be held in Calcutta 12th April, 1958.*

The Report of the I.M.A. representatives to the Conference had not been received and as such, the matter was postponed.

XV. *Visit of* (1) *Dr. Von Rosen, Associate Professor of Orthopaedics at the University of Lund and Surgeon-in-Chief of the Orthopaedic Dept. of the Malmo General Hospital, Sweden, to various branches of the I.M.A. delivering lectures during November and December, 1957 and January and February, 1958.*

(2) *Dr. Stanley P. Reimann to India under the joint auspices of the I.M.A. and the University of Delhi, Faculty of Medicine.*

Noted.

XVI. *Refund of Deposits (as security) to certain candidates for residency/internship jobs.*

Dr. D. S. Mehra, the Hony. Asst. Secretary, sought the sanction of the house to refund the security of three doctors who had deposited Rs. 500/- each with the I.M.A. after they were selected for residency training in U.S.A. These doctors could not avail of the appointments that the I.M.A. had obtained for them for one reason or another. Dr. Mehra apprised the house of the special circumstances under which they did not accept the offers.

The House sanctioned the refund of Rs. 400/- out of the sum of Rs. 500/- deposited, Rs. 100/- being adjusted towards expenses incurred in securing the appointments. The deposits were to be returned in the case of the following three doctors :

1. Dr. S. K. Khanijo (Delhi)
2. Dr. Sanyogita D. Rao (Hyderabad)
3. Dr. V. K. Singhal (Meerut).

XVII. *Conference called by the Ministry of Health, on 15-3-58 at the Secretariat, New Delhi, to discuss the following questions.*

1. Increasing the number of qualified and efficient teachers for the medical colleges.
2. Establishment of more colleges and expanding the existing ones.
3. Scale of their pay and suitable emoluments.

Dr. D. V. Venkappa, the President, described in detail, what took place at the Conference. He had also submitted a short note on the subject.

XVIII. *Appointment of Standing Committees.*

Because of shortage of time, the Working Committee decided that the President, in consultation with the office-bearers of the Central Office, would nominate the personnel of the various Standing Committees.

XIX. *Any other business with the permission of the President.*

(1) *Application from Mr. Prem Nath, Despatch Clerk at the Central Office, I.M.A.* :

The Working Committee approved of placing Mr. Prem Nath, Despatch clerk at the Central Office, in the grade of a Typist-*cum*-Despatcher and Record Keeper and his pay scale was fixed at Rs. 75-6-105-7½-165.

(2) *Letter No. 663 dated 1-4-58 from the Hony. Secretary, Kerala State Branch, I.M.A. re. Travancore-Cochin Medical Practitioners Act Amendment Bill 1957* :

The Hony. General Secretary read out the letter to the house, and the Working Committee approved of the action taken by the Kerala State Branch. It was decided that the matter be taken up with the higher authorities and the letter circulated to the branches for information.

The matter was also to be referred to the appropriate Standing Committee.

(3) *Letter No. 25/57-98 dated 26-3-58 from the Hony. Secretary, Belgaum Branch, I.M.A., re. affiliation of Belgaum Branch with Mysore State Branch.*

The subject matter of the above letter was discussed by the house and the Working Committee did not agree to the request made by Belgaum Branch to allow it to function under Maharashtra & Karnatak Territorial Branch until such time that the Western Zonal Council gave its final decision. The Belgaum Branch was requested to integrate with Mysore State Branch as per Rule No. 6 (as amended) of the I.M.A.

(4) *Operation of the Provident Fund account (staff of the Journal of the I.M.A.) with the Presidency Postmaster, Calcutta.*

The Hony. General Secretary informed the house that with the election of the new Hony. Treasurer of the I.M.A. Central Office, for the year 1958, a copy of the relevant resolution and specimen signatures of the office-bearers concerned, viz., the Hony. General Secretary, the Hony. Treasurer and one of the Hony. Joint Secretaries, were forwarded to the Presidency Postmaster, G.P.O. Calcutta. Since according to the postal rules, the said account was to be operated by only two office-bearers, the following resolution was passed unanimously (as proposed by Dr. H. N. Shivapuri (Lucknow) and seconded by Dr. M. M. S. Siddhu (Lucknow) :

"Resolved that the Provident Fund Savings Accounts of the Indian Medical Association will be jointly operated by the Hony. General Secretary and the Treasurer".

Acknowledgments :

The following resolution was proposed from the chair and passed unanimously :

"This meeting of the Working Committee of the I.M.A. places on record its deep appreciation and thanks for the hospitality and courtesy accorded to its members on the occasion of the meeting held on 12th and 13th April, 1958 by the President and members of Jabalpur Branch under its auspices."

With a vote of thanks to the Chair, the meeting came to an end.

Sd/- D. V. VENKAPPA,
President,
Indian Medical Association.

Sd/- A. P. MITTRA,
Hony. General Secretary,
Indian Medical Association.

BRANCH NOTES

ALLAHABAD BRANCH—A general meeting was held on 19-4-58, Dr. S. K. Mukerjee presiding. Condolence resolutions on the sad deaths of the following were passed : mother of Dr. S. K. Mukerjee, son-in-law of Dr. D. N. Basu, father of Dr. Bal Krishna, wife of Dr. Dayanidhan, and Dr. Har Govind Sahai.

The recommendation of the Executive Committee for purchasing oxygen cylinders by the Branch for the benefit of the public, was approved.

A scientific meeting was held on 24-5-58. Dr. R. P. Mehrotra opened a discussion on Uses of ACTH and the Cortisone Group of Products, in which many participated.

A resolution seeking to make "urgent representation" to the Government of India for "immediate withdrawing the import restriction if any, on such a vital drug as dihydrostreptomycin (and allied products)" was adopted at the meeting.

ERODE BRANCH—At a meeting held on 7-3-58, Dr. C. R. Thiruvengadam demonstrated a number of interesting surgical and medical cases.

TANJORE DISTRICT BRANCH—The 21st Annual Conference of the district Branch was held on 5-10-57 at the Medical School Building, B. M. Hospital, Tanjore, under the presidentship of Dr. Mohamed Ismail. Seventy-five doctors attended. Addresses were given by : Dr. R. D. Anantachari, Principal, Madurai Medical College on The Medical Management of Malignant Hypertension ; Dr. L. N. Murthy Rao of the All India Institute of Mental Health, Bangalore, on Recent Trends in Psychiatric Practice ; Dr. C. K. P. Menon, Superintendent, Erskine Hospital, Madurai, on Recent Trends in Surgical Problems ; Dr. (Miss) A. Marikar, Superintendent, Government Kasturba Gandhi Hospital, Madras, on Irregular Vaginal Bleeding.

The following office-beares were elected ; President—Dr. Mohamed Ismail ; Vice-President—Dr. T. M. Pillai ; Hony. Secretary and Treasurer—Dr. S. Narayanan ; Representatives to State Council—Dr. T. M. Pillai, Dr. K. Rama Rao, Dr. T. R. Ramachandra Rao, Dr. P. Narayana Rao ; Representative to Central Council—Dr. T. M. Pillai.

A monthly meeting was held on 24-1-58 with Dr. Mohamed Ismail as president. Dr. V. Selvaraj spoke on The Surgical Aspects of Peptic Ulcers.

Another meeting was held on 23-2-58. Dr. R. Subramanian spoke on Cerebral Vascular Catastrophe—Diagnosis and Management.

TIRUCHI DISTRICT BRANCH—A meeting was held on 17-5-58 with Dr. L. S. Ramachandran in the chair.

Nominations were made for the Presidentship and Vice-Presidentships of the I.M.A. Dr. M. Natarajan gave a talk on Use and Abuse of Steroids in Skin Diseases, illustrated by lantern slides. A discussion, in which many took part, followed.

A condolence resolution on the death of Mrs. Sithammal, mother of Dr. P. Palniyandi Pillai, was moved from the chair and carried.

VISAKHAPATNAM BRANCH—At the general body meeting on 24-5-58 under the presidency of Dr. H. M. Lazarus, it was resolved "that the centre be addressed to allow the C.F.C. to remain at Rs. 8/- for every member irrespective of their earned income".

The following cases were demonstrated : Functional Aphonia from Psychiatric Ward by Dr. A. Sankarrao; Tuberculoma of Left Cerebellar Lobe, Subdural Hygroma Bilateral, Basilar Impression Causing Cervical Cord Compression by Dr. S. Bala Parameswararao; Paraplegia following Acetylarsan by Dr. S. Raghnandan; Two cases of Abdominal Pregnancy by Dr. H. M. Lazarus.

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A Souvenir will be published to commemorate this happy occasion and about 4000 copies will be distributed.

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